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THE CHILD

AND HOW TO NURSE IT

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*Alexander Milne. M.D.*







# HOW TO NURSE A CHILD

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# HOW TO NURSE A CHILD

OR THE

## MANAGEMENT OF CHILDREN, AND THEIR DISEASES

BY

ALEXANDER MILNE, M.D., L.R.C.P. & S.

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'MATERIA MEDICA,' ETC., ETC.



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## P R E F A C E

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THE object of this book is to give plain and practical hints and directions in regard to the rearing of children, and their treatment when afflicted with disease. It is not at all meant to supersede the properly-qualified medical man (far from it), but only to make his duties less irksome when called in, and to help to avert and arrest complications and dangers when he cannot be present at an early period of the disease. The Author has been often asked to write such a book, but has not undertaken the task until possessed of twenty years' practical experience. During that period it has been his lot to attend many thousands of children, and to witness—alas! too often—pangs and pains, sufferings and death, which might have been avoided had a little knowledge been present, or, rather, he might say, had the grossest ignorance not prevailed. This want of knowledge was not confined more particularly to any one class; indeed, often existed where it might have been least expected. The Author has noticed a progressive improvement during his time; *but many mothers still have as little idea what to do*

with their child when it is brought into the world as the tender babe itself. An old and able writer truly remarks: "Did mothers reflect on their own importance, and lay it to heart, they would embrace every opportunity of informing themselves of the duties which they owe to their infant offspring. It is their province not only to form the body, but also to give the mind its most early bias. They have it very much in their power to make men healthy or valedudinarian, useful in life or the pests of society." Fathers also might, in many cases, take more interest in the healthy upbringing of their children. Of course they are usually more engrossed outside in different pursuits; but much assistance may be rendered the mother by the acquisition and application, on their parts, of more knowledge as regards the physical welfare of their offspring.

It is no longer thought, we believe, that the possession of a little acquaintance with physiology and medicine tends to make people miserable. This may be the case in some few instances; but as a late distinguished and lamented physician of this city (who himself set the example of instructing the public) says, he "believes that an acquaintance with various subjects of medical interest is fitted to exalt that reliance which should at all times be placed on the opinion and advice of the accomplished medical man; while, on the other hand, it would tend to diminish the eagerness which has long been, and is still, manifested to take refuge in all varieties of quackery."

Physiological and medical knowledge, then, when widely spread, besides being inimical to empiricism, is of immense benefit in the way of helping to avoid disease. It concerns all to possess such in the interests of health and well-being ; for those who are completely ignorant of the causes of disease can scarcely be expected to avoid many of them, at least. In conclusion, the Author earnestly hopes that this little work may find its way into many hands, and be the means alike of warding off disease, where that is possible, of alleviating it when present, and of mitigating suffering and pain. He will be glad to receive hints from any quarter, lay or professional, whereby future editions may be added to or improved ; and he is aware that there is not a little unwritten knowledge of matters concerning children which would be well worth pondering and utilising for the public good.

104 LAURISTON PLACE,  
EDINBURGH, *April 1880.*



# CONTENTS

---

	PAGE
Accidents, the various kinds of - - - - -	162
,, Swallowing of Coins, Fruit Stones, Needles, Pins, etc. - - - - -	162
Ablution, or Washing of the Child - - - - -	8
Ague, or Intermittent Fever - - - - -	106
Amusements, etc., Children's - - - - -	210
Apoplexy, or Congestion of the Brain, or Cerebral Hæmorrhage, etc. - - - - -	136
Atrophy, or Wasting, as the result of Starvation, Baby- farming, etc. - - - - -	74
Baby-farming - - - - -	74
Bath, Warm ; How long Child to be kept in - - - - -	227
Bacon, Wiltshire - - - - -	224
Beef-tea - - - - -	223
Bleeding : Cautions in the case of the Young - - - - -	183
Blisters : Caution regarding their Employment in the Young - - - - -	182
Bones, Fracture of - - - - -	165
Bottles, Feeding - - - - -	228
Bowel, falling down of, or Prolapsus Ani - - - - -	187
Brain, Cancer of - - - - -	138
,, Congestion of the - - - - -	136
,, Hypertrophy of - - - - -	132
,, Softening of - - - - -	138
,, Water in - - - - -	124
Branks, or Mumps - - - - -	43
Breasts of Mother and Child - - - - -	21
,, Inflammation of - - - - -	22

	PAGE
Bronchitis - - - - -	46
Burns and Scalds - - - - -	166
,, Treatment of - - - - -	167
Cancer of the Brain - - - - -	138
Cancrum oris, or Gangrene, or Mortification of the Mouth	100
Catarrh - - - - -	50
Cephalhæmatoma - - - - -	137
Chicken Broth - - - - -	223
Chicken-pox, or Crystal-pox, or Varicella - - - - -	112
Chilblains and Chaps - - - - -	185
Child-Crowing, or Spasmodic Croup, or Spasm of the Glottis, or Laryngismus stridulus - - - - -	142
Children's Amusements, Evening Parties, etc. - - - - -	210
Chin Cough - - - - -	80
Cholera Infantum, or Summer Complaint - - - - -	72
Consumption, Pulmonary - - - - -	53
,, Abdominal, or Tabes Mesenterica - - - - -	149
Constipation - - - - -	188
Convulsions, or Convulsive Fits - - - - -	138
Cord, or Navel String, Management of - - - - -	6
,, Bleeding from - - - - -	7
,, Serious Bleeding, or Hæmorrhage from - - - - -	8
Coryza, or Stuffing of the Nose - - - - -	42
Cow-pox - - - - -	117
Cradle, or Rocking-chair - - - - -	213
Cretinism, or Goitre, or Bronchocele - - - - -	152
Croup - - - - -	142
,, Spasmodic - - - - -	142
Crystal-pox - - - - -	112
Dentition, or Teething - - - - -	35
,, Convulsions during - - - - -	37
,, The Cough of - - - - -	37
,, Order of the appearance of Teeth - - - - -	36
,, Skin Eruptions during - - - - -	38
Diabetes - - - - -	62
Diarrhoea - - - - -	65
,, Different kinds of - - - - -	66

# CONTENTS

xi

	PAGE
Diarrhœa, Symptoms of - - - - -	67
,, Treatment of - - - - -	68
Digestion of Infancy - - - - -	62
Diphtheria - - - - -	107
Disinfectants, Calvert's, etc. - - - - -	217
Drowning - - - - -	178
,, Treatment of - - - - -	178
Dysentery, or Inflammatory Diarrhœa, or Entero-Colitis -	69
Ears, the various accidents of - - - - -	163
Ear-ache - - - - -	186
,, Treatment of - - - - -	187
Enemata, or Injections - - - - -	229
,, The different kinds of - - - - -	229
Entero-Colitis, or Dysentery, or Inflammatory Diarrhœa -	69
Epilepsy, or Falling Sickness - - - - -	154
Exercises fitted for Youth - - - - -	204
,, Cricket - - - - -	208
,, Croquet - - - - -	208
,, Dancing - - - - -	207
,, Fencing - - - - -	208
,, Football - - - - -	208
,, Golf - - - - -	208
,, Leaping - - - - -	207
,, Riding - - - - -	209
,, Rowing - - - - -	209
,, Swimming - - - - -	209
Exercises, Walking - - - - -	206
,, Wrestling - - - - -	208
Falling Sickness - - - - -	154
Favus or Tinea - - - - -	200
Fever - - - - -	101
Fever, Enteric, or Gastric, or Typhoid - - - - -	101
,, Intermittent, or Ague - - - - -	106
,, Remittent, or Bilious - - - - -	105
,, Scarlet - - - - -	91
,, Scarlatina - - - - -	91
,, Typhus - - - - -	103
Fomentations, Cold, Hot, and Medicated - - - - -	225



	PAGE
Food, Artificial . . . . .	29
„ Neave's . . . . .	30
Gastritis, or Inflammation of the Stomach . . . . .	64
Gelatine, The different kinds of . . . . .	220
„ The utility of in different Diseases . . . . .	220
Goitre, or Cretinism, or Bronchocele, or Derbyshire Neck . . . . .	152
Hair and its Treatment . . . . .	213
Head, Injuries of . . . . .	165
Heart Disease . . . . .	57
„ Causes of . . . . .	58
„ Symptoms of . . . . .	58
„ Treatment of . . . . .	59
Herpes . . . . .	196
„ Zoster, or Shingles . . . . .	197
Hooping-Cough, Chin-Cough, Kink-Cough, or Pertussis . . . . .	80
„ How the disease begins . . . . .	81
„ Complications of . . . . .	83
„ Treatment of . . . . .	83
„ What about change of Air . . . . .	85
Hydrocephalus, or Water in the Head, or Water in the Brain . . . . .	124
Hypertrophy, or Overgrowth of the Brain . . . . .	132
Hypochondriasis . . . . .	159
Ice: its use in various Diseases . . . . .	226
Idiots, or Silly Creatures . . . . .	131
Impetigo . . . . .	199
Indigestion . . . . .	63
Infant, The mental culture of . . . . .	201
„ The newly born . . . . .	1
„ The different Cries of . . . . .	1
„ Mucus in the Air Passages of . . . . .	1
„ How to Revive when Weak, etc. . . . .	1
„ Deformities of, not to be made known to Mother . . . . .	2
„ Marks of Health and Maturity in . . . . .	4
„ Signs of Immaturity in . . . . .	5
„ Difficulty of Passing Water in . . . . .	5
„ Survival of, at Six and a-half Months . . . . .	6
„ The Ablution, or Washing of . . . . .	8

# CONTENTS

xiii

	PAGE
Infant, Clothing of - - - - -	12
,, Inflammation of Breast of - - - - -	22
,, Diet or Aliment of - - - - -	24
Inflammation of the Lungs, or Pneumonia - - - - -	44
,, Of the Stomach, or Gastritis - - - - -	64
,, Of the Membrane of the Brain - - - - -	134
,, Of the Peritoneum - - - - -	151
,, Of the Bowels - - - - -	151
Influenza, or Epidemic Catarrh - - - - -	51
Injections, or Enemata - - - - -	229
Insanity, Moral - - - - -	146
Jaundice - - - - -	60
Kidney Disease - - - - -	61
,, Rare in the Young - - - - -	61
,, Symptoms and Treatment of - - - - -	62
Lentilla - - - - -	224
Leeches, Their Utility - - - - -	226
,, What to do if Bleeding does not stop - - - - -	226
Liver Disease - - - - -	59
Leucorrhœa, or White Discharge of Infants - - - - -	190
Malingering - - - - -	159
Maltine, The different Preparations of - - - - -	218
Measles, or Rubeola - - - - -	87
,, Bad, Malignant, Black, or Purple Measles - - - - -	89
Medicines, Rules and Cautions for Administration of, viz., Opium, Antimony, Ipecacuanha, Mercury, Digitalis, Dover's Powder, Syrup of Poppies, Morphia, etc. - - - - -	179
Meningitis, or Inflammation of the Membranes or Cover- ings of the Brain - - - - -	134
Milk, The Mother's - - - - -	25
,, Asses' - - - - -	29
,, Of City-fed Cows - - - - -	28
,, Swiss, or Condensed - - - - -	26
,, One Cow's - - - - -	26
Mouth, Mortification of the - - - - -	100
Mumps, or Branks - - - - -	43
Mutton Tea - - - - -	223

	PAGE
Navel of the Infant - - - - -	6
„ Bleeding from - - - - -	7
„ Imperfect healing of - - - - -	7
Night Terrors, or Fears - - - - -	160
„ Causes of - - - - -	161
„ Treatment of - - - - -	161
Nipple - - - - -	17
„ Different kinds of - - - - -	17
„ Inflammation of - - - - -	17
Nurse, Monthly, the Qualifications of - - - - -	14
„ Wet, Qualifications of - - - - -	16
„ Wet, Diet of - - - - -	18
„ „ Duties of - - - - -	20
Nursery - - - - -	31
„ The Arrangements of - - - - -	32
„ The Atmosphere of - - - - -	32
„ The Cleaning of - - - - -	34
Nutricine - - - - -	220
Otorrhœa, or Running from the Ears - - - - -	99
Ozæna - - - - -	189
Ozokerine - - - - -	219
Paralysis, or Palsy - - - - -	147
Parents, Diseased - - - - -	39
„ Influence of, Health of, on Offspring - - - - -	40
Perambulators - - - - -	204
Pertussis, or Hooping Cough - - - - -	80
Phthisis, or Pulmonary Consumption - - - - -	53
„ Children Differently Affected from Adults - - - - -	54
„ Erroneous Opinions regarding the age at which it occurs - - - - -	54
„ Is it Infectious? - - - - -	54
Plasters - - - - -	228
Pleurisy - - - - -	52
Pneumonia, or Inflammation of the Lungs - - - - -	44
Poisoning - - - - -	168
„ Treatment of - - - - -	170
„ by Laudanum - - - - -	170

# CONTENTS

XV

	PAGE
Poisoning by Oxalic Acid, Lucifer Matches, Laburnum,	
Arsenic . . . . .	171
,, Sugar of Lead, Verdigris, Sweetmeats . . . . .	172
,, Alcoholic Drinks, Emerald Green, Brunswick	
Green, etc. . . . .	175
,, Yew-leaves, Mushrooms, Bitter Almonds . . . . .	176
,, Fish, Meat, etc. . . . .	177
,, Fool's Parsley . . . . .	178
Poultices, or Cataplasms . . . . .	224
Precocity . . . . .	146
Pyretic Saline . . . . .	222
 Rickets . . . . .	 122
,, Symptoms and Signs of . . . . .	122
,, Treatment of . . . . .	123
Ringworm . . . . .	194
Ringworm, Treatment of . . . . .	195
Roseola . . . . .	99
Rubeola, or Measles . . . . .	87
Runnings of the Neck . . . . .	183
,, How to prevent them . . . . .	184
,, How to treat them . . . . .	184
 Saline Preparations.—The Pyretic of Lamplough, etc. . . . .	 220
Scalds . . . . .	166
Scarlet Fever, and Scarlatina . . . . .	91
Scall, Running, or Milk-crust, or Tooth-crust . . . . .	198
Shingles . . . . .	197
Sleep and Sleeplessness . . . . .	211
Scrofula, or Struma, or King's Evil . . . . .	78
,, Treatment of . . . . .	80
Small-pox, or Variola . . . . .	113
Snuffles, or Coryza . . . . .	42
Spine, injuries of . . . . .	166
Stomach, Inflammation of the . . . . .	64
Summer Complaint . . . . .	72
Sunstroke . . . . .	186
St Vitus's Dance, or Chorea, or Choreomania . . . . .	143
Stye . . . . .	183
Swallowing Coins, etc. . . . .	182

	PAGE
Tabes Mesenterica - - - - -	149
Teas, the different kinds of - - - - -	223
,, Beef-tea, Chicken-broth, Mutton-tea, Veal-broth -	223
Teething - - - - -	35
,, Convulsions during - - - - -	37
,, The Cough of - - - - -	37
,, Skin Eruptions during - - - - -	39
Tongue-tie - - - - -	23
Thrush - - - - -	39
Typhoid, or Enteric, or Gastric, and Typhus Fever -	101
Urine, Incontinence of - - - - -	193
,, Treatment of - - - - -	194
Vaccination, and Vaccine Disease, or Cow-pox -	117
Varicella, or Crystal-pox, or Chicken-pox -	112
Variola, or Small-pox - - - - -	113
Veal Broth - - - - -	223
Vomiting in Infancy - - - - -	73
,, Causes of - - - - -	73
,, Treatment of - - - - -	74
Washing of the Child - - - - -	8
Water in the Head, or Hydrocephalus - - - - -	124
Wetting the Bed - - - - -	193
,, Treatment of - - - - -	194
White Discharge of Infants - - - - -	190
Worms - - - - -	190
,, Causes of - - - - -	191
,, Symptoms of - - - - -	191
,, Treatment of - - - - -	192
Wounds, Bruises, etc. - - - - -	164
Zcedone - - - - -	224

“The records of infant mortality offer a melancholy illustration of the necessity of the mother’s previous preparation for the care of her children. . . . The infant’s life is in the care of the mother, and its safety depends upon the intelligence and discretion that she gives to this responsibility.”—  
*Extract from Health Reports.*

## HOW TO NURSE A CHILD

---

**On the newly-born infant, &c.**—When a healthy infant is ushered into the world, by a mechanism which it is not our province to describe here, it usually cries lustily, and tosses about with great vigour and mobility of limbs. The cry is not one, as a rule, indicating pain, although in some severe instances pain will necessarily be felt. The cry of a healthy infant is loud, but soon ceases; while the cry of one suffering pain is more continuous, and is alternated with moaning. When, on the other hand, an infant does not cry at all, there is something wrong, and the doctor or nurse must find out the cause and rectify it, if possible. It is possible the infant may be born dumb, but usually the silence arises from mucus in the air passages, the mouth, throat, and nostrils, and if so, this should be speedily cleared away. The child should then be slapped well over the buttocks, and if necessary placed in a warm bath; and at the same time cold water should be laved on the head and face. When the

infant appears, the question of friends is whether it be sound and well developed, "wise and world-like," as the common saying is. The mother may not ask this question for a while; but if she does, and the child be healthy and well formed, free from defect or deformity, then the sooner she is assured of the fact the better. It conduces to necessary repose. If any defect or deformity, or excess of parts (such as supernumerary fingers or toes—six instead of five—hare-lip, spinal tumour, mother's marks, etc.) be noticed by doctor or nurse, let not the existence of one or other of these be made known to the mother, at least for some time. Thoughtless nurses have done great harm by not adhering to this bounden rule and duty. They should be made to understand that the mind and nervous system of the mother are unusually sensitive at this time, more so in some women than in others; and that any rude shock, such as the intimation of deformity, may injure greatly, and retard recovery. We have known nurses magnify a scratch, or the ordinary swelling on the head of a child, into something grave, and thus disturb the peace of mind of the mother. A nurse who has not the education, or even the common sense to avoid acting in this way, is unworthy of the name and the position. But while the mother is not to be informed too soon of the existence of malformation or deformity, the father, if present, should be made aware of it; in his absence the nearest relative should be informed. The reason is, that in *the case of a tumour, say on the spine*, the nurse or

doctor might be blamed for it ; it might be said that the child had been carelessly handled and allowed to fall, and that the swelling had arisen in consequence. This, however, is a very rare possibility ; but apart from this consideration, as a matter of duty, we ought to intimate to the male parent, as before said, the existence of the defect, deformity, or malformation, withholding it from the mother for a time, purely in deference to her temporarily frail condition. When the mother has obtained a few days' rest and quietude, the husband or any near friend may make known the existence of the deformity. This should be done in a gradual and gentle manner. Any very abrupt intimation from whatever quarter—whether from husband, nurse, or old woman—usually gives a very severe shock ; indeed, it has sent some women into convulsions. It is a singular fact that where a child comes home deformed, the mother will persist in inquiring whether all is right with the child. They would almost seem to know that their offspring was deformed. This may be owing to a dread inspired by the knowledge that some of their ancestors were malformed, possessed, say, of extra fingers, or toes, or other abnormalities. When the child appears plump, fat, and healthy, and cries strongly, it is pleasant for all concerned. The mother can then be assured at once of the fact, and this intimation is an excellent tonic for her. In regard to the signs of a thoroughly healthy, or viable child, or one capable of surviving, it will be as well to enumerate them here.



**Characteristics or marks of a healthy and mature child.**—A healthy and mature infant should cry as soon as it reaches the atmospheric air ; if it does not do so, the indication is that mucus may be obstructing the air passages, or a caul may be over its mouth, or it may be born dumb. A doctor, if present, or a nurse will clear away anything obstructing the air passages, or the mouth and nostrils, and then the child will breath well and cry loudly. A mature child should be of a clear-red colour, and the hair, eyebrows, and nails especially, should be well developed. The mouth, nostrils, eyelids, and ears should be completely open, the bones of the head (cranial bones) should be somewhat solid, and not too far apart, or floating too loosely, as it were ; and there should be the power both of grasping the nipple and of swallowing. In some cases, indeed in very many cases, there is difficulty in grasping or holding the nipple of the mother, not owing to immaturity or feebleness on the part of the child, but because it happens to be tongue-tied. See article TONGUE-TIE, p. 23. When this is observed the medical man cuts with blunt-pointed scissors, or tears with his finger-nail, the thin bridle of membrane which binds down and restrains the tongue, and interferes with suckling. Further, a mature child should pass meconium, or dark tarry-looking matter, a few hours after birth at the latest. If it does not do so, there is reason to fear that some obstruction exists. Still, we have known a day or more elapse without *this* appearing, a little castor oil being sufficient to

bring it away, showing that there was no organic obstruction. A healthy child usually passes water soon after birth, but often twenty-four hours or more may elapse before this function is performed. Let not parent or nurse, however, become alarmed or impatient in such cases; let them not resort hurriedly to the sweet spirits of nitre; give the child time and the water will naturally flow: if not, a few drops of sweet nitre may be given in sugar and water. Placing the lower half of the body (that is, below the binder), in warm water, in most cases will answer more effectually than drugging with nitre. The weight of children varies greatly; they may be healthy enough though only  $4\frac{1}{2}$  lbs. in weight; the average is  $6\frac{1}{2}$  lbs.

**Signs of an immature child.**—A child not fully matured, or, as we say, premature, is small, and moves its limbs feebly. The skin is intensely red, and bluish vessels course along it, the head is covered only with down, the nails are not fully formed, and the bones of the head are soft and widely separated. It sleeps or doses continually, and can scarcely grasp the nipple, and it passes meconium and urine imperfectly; it pants and breathes quickly, and moans; and unless well surrounded with flannel or wool, or other artificial heating material, becomes rapidly cold. Children rarely survive when born before the seventh month. There are cases recorded where children born in the fifth and sixth months are alleged to have survived, but these must be viewed as extremely rare and doubtful cases. For our own part we have not known any infant reared

that was born under six and a-half calendar months. An infant born before this time may swallow readily, but its cry is a sort of squeak ; it is a yellow-looking, wrinkled creature, with cold extremities and closed eyes, and it passes meconium and urine badly, if at all. It usually dies in from one to five days. Such infants are about fourteen inches in length, and two pounds in weight. As regards children born at the eighth month, there is an opinion pretty prevalent that they are more likely to die than those born at the seventh month. We believe this to be a mistake, and know of no foundation for the belief ; indeed, we have seen many eight months' children survive.

**The Management of the Cord or Navel-String.**

—This is usually carefully attended to by the accoucheur or qualified medical man ; but there are many poor women and others, residing, it may be, a great distance from a proper doctor, who have to entrust this duty to an inexperienced attendant. A few hints, therefore, seem requisite, and may prove of utility in the way of diminishing infantile suffering, and even at times of saving life. It would really seem a simple matter that of tying the navel-string or cord ; yet it is often most imperfectly done. We have met with a good number of instances where grave results followed the mismanagement of it. The proper plan is this :—Make a cord of about eight strong threads, or of narrow tape twisted into cord, and tie it round the navel-string pretty firmly, at a part situated about three *inches* from the umbilicus—in short, from the belly

of the child. This is, of course, done when the infant is newly born. When it is washed and dried, we are always in the habit of using a second string or ligature, afterwards neatly enfolding the cord in a double bit of soft linen, four inches wide and six inches long, because the cord shrinks, and in doing so may permit of serious or dangerous hæmorrhage. Nurses might, and do, watch for this; but often they neglect it, and only when they see blood staining the binder are they aroused to a proper sense of duty and of action. Sometimes they will send a hurried message for the doctor after he has been, it may be, some time in bed. A proper and skilled nurse will put on a fresh string or ligature, and will not dream of sending for the medical man. We may add that a very small escape of blood makes a great show on the linen. A caution must also be here interposed:—let not the nurse interfere much with the string for several days: they are by far too much given to meddling with it—they even tug away at it the third day. Now, as it takes commonly five days to drop (sometimes as many as ten), this needless daily meddling with it is apt to cause separation before the proper time, and consequent bleeding, which may prove serious. Another evil may be ulceration of the part; or a red growth, like proud-flesh, which may require the application of caustic. Another consequence of unnecessary interference is a navel rupture, which may necessitate long, if not permanent bandaging; nay, ultimately a surgical operation. *Let it be emphatically impressed, then, on the*

minds of nurses not to meddle prematurely with the navel-string. If the linen in which the cord is folded becomes rather wet, some fine dusting powder, such as Foulkes', should be inserted from time to time. Fuller's earth, finely pulverised, is also used.

*Serious Hæmorrhage, or Bleeding from the Navel.*—

In some rare cases bleeding continues to an alarming extent after the cord separates. This is owing to the constitution of the child—to the state of its blood; due sometimes to defects of the liver, etc. In nearly all such cases death results. The treatment, of course, should be solely in the hands of the medical man. In his absence, a pad of cotton wool, firmly applied, will temporarily stem the blood.

**On Ablution, or the Washing of the Child.**

—A good deal of difference of opinion has existed among medical men as to whether warm or cold water should be used for washing the child. Some recommend cold water from the beginning, under the impression that it helps to brace and strengthen the infant; but in our changeable climate, and especially during the cold weather, it is unsafe to apply cold water for the first fortnight. It is very apt to induce a cold, a running at the nose, inflamed eyelids and eyes, or a cough, or diarrhoea. The water should be tepid, a medium betwixt hot and cold. The nurse must be careful to test the water with her hand before beginning to wash the child, otherwise it may be too hot; and we have known children actually scalded—a piece of stupid and gross cruelty. The first washing should

be performed with much care, because in the majority of children there is on their skin a viscid, wax-like, and strongly adherent paste (or "gum," as it is commonly called) covering a great part of it, and especially profuse on the back, and which is not easily removed unless due pains be taken. Some nurses will endeavour to rub it off—we should rather say, scrub it off—with a rough towel or napkin, saying, as they ply their rough business, that "it's no matter the first day whether the gum comes off or no." It is no matter to them, certainly, because it saves what is vulgarly called elbow-grease, but it matters to the child. See, then, that the ablution be not perfunctory, but proper from the outset. The best method to adopt is first to rub gently over the whole of the gummy part some oil, or lard, or fresh butter, then to apply soap of good quality. Calvert's nursery soap is the best that can be had for the purpose. In the absence of it, Castile soap may be employed. A bit of flannel answers well to begin with, but a good sponge, absorbing as it does more water, should be employed in finishing the process. In washing, care should be taken not to allow the soap-suds to get into the infant's eyes, for doubtless a good many cases of ophthalmia, or inflamed eyelids, are thus occasioned. The infant's napkin should be often renewed, otherwise scalding will result. Wet and dirty napkins are almost the sole cause of this; so the inflammation or scalding of a child's skin implies a careless nurse.

*What Not to Do.*—It is common in various parts

of Britain and elsewhere to apply different alcoholic stimulants to the skin: gin, for example, in London, whisky in Edinburgh and further north, west and east, rye spirit in Russia, brandy in France, and so on. The nurses say that it prevents the child catching cold, but this must be pronounced a delusion and a snare. When a glass of fiery spirits is poured out for the ostensible purpose of preventing the child catching cold, about fifteen drops are applied to the infant's skin—said fifteen being cautiously measured out, or placed on the palm of the nurse's hand; the remainder, which of course is the whole glass, minus ten to fifteen drops, going where? Why, not seldom down the anxious nurse's throat. She, poor, anxious person! does not like to see her delicate charge catching cold, but has not the slightest objection to herself being made artificially warm; said temporary heat, however, being often unfortunately accompanied by a condition of brain inimical to proper nursing. We have seen it in former days over and over again. We should not like to be too hard upon nurses, but truth is more golden than silence here. We see, however, that a different class of nurses are springing up, and soon we trust such practices will cease. We meet nurses daily, and find their quality improving much. Long may it continue!

**When to begin the Use of Cold Water.**—A suitable time, if the weather is not too cold, will be the middle of the third week. A day or two previously *the temperature* of the water may be gradually lowered.

The child should be washed twice a-day, in the morning the whole body being embraced in the process, the evening ablution being confined to the lower parts, which, however, should be gently yet thoroughly cleansed. Even during the day a gentle ablution of the parts liable to be irritated or excoriated is frequently necessary; that is, it is needful where the urine is hot, and the motions acrid. We have employed the word gentle very often; but we have a purpose in view—namely, to call attention to the fact that over-rough rubbing may inflame and excoriate the skin as readily as inattention to washing, or the unhealthy state of the water and stools. The water should be showered on in great profusion, care being taken that the infant be well dried afterwards with a soft towel or napkin. The drying process will not be roughly done by the good nurse, that is, the nurse with experience, skill, and conscience.

**Dusting-Powders.**—In connection with ablution, or the washing of the child, it is well to use some form of dusting-powder after the gentle drying of the infant. The lower parts of the body—in front and behind—about the groin, and the armpits, should have especial attention. Often the skin becomes swollen and red, it cracks and peels off, and this causes a good deal of uneasiness and pain to the infant. This is usually the result of carelessness on the part of the nurse—slovenly washing. It may arise also from the dress or napkins of the child being impregnated or saturated with soda *in the process of washing*. Doubtless, also, an un-



healthy condition of the evacuations leads to swollen and inflamed external parts. As regards the proper form of dusting-powder, we have numerous kinds in vogue, such as violet powder, fine starch, native carbonate of zinc, and Fuller's earth. On the whole, there is nothing better, in our estimation, than Mr Foulkes' (of Birkenhead) toilet and nursery powder. It is an impalpable, pure emollient and elegant dusting-powder, and safer in its use than the preparations of zinc, etc. We recommend it in preference to all others.

**Clothing.**—This is a matter of vital importance, but in regard to it there is much mismanagement in many quarters yet. We have, I believe, got rid of the thick flannel cap and tight bandaging of the frail head of the infant; but do we not sometimes yet see the body too firmly bound? Some, moreover, though not using a flannel cap for the head, employ a linen one. Now, unless the child be very delicate, and the climate a trying one, this also may be dispensed with. As regards the body clothing, the main objects are to secure due warmth, and to avoid undue restraint. A moderately firm binder of flannel is applied around the abdomen. This should come down to the lower part of the belly, and be fastened only with safety-pins or stitched. Many a belly pain, as elsewhere remarked, has been due to the prick of an ordinary pin, and not to gripes. The upper part of the body—the chest—should not be much burdened with clothing, at least there should be nothing put on fitted to impede the

action and full play of the lungs and heart. Do not tie up children as if they were hard goods going by carrier's cart or railway, as if they were a bundle of threads and bones, ready at a moment's notice to be scattered to the winds. An old writer says :—"How many children have been destroyed by swathing and rowling is a black scene! Hence most diseases of the chest and lungs—asthma, short breathings, consumptions, and the coughing tribe; hence crooked backs, backle hams, baked, or bowed, or bent knees, etc." Observe a child when it is loose and free (that is, as regards dress), how it plays with its little hands and legs, and is so pleased; and how sour and peevish it is when it is bound, or buckled up, for a whole night's torment! In the case of a female child especially, if it is wished, apart from the question of health, to see her become, as she grows up, "small by degrees and beautifully less, from the soft bosom to the tender waist," then we shall see to it that no tight lacing of the chest is permitted. A warm, loose covering, then, coming well up to the neck, is all that is required for the infant, and the binder referred to, around the abdomen, should not be more than moderately firm. The dress, it may be added, should not be unduly long, for then it becomes burdensome. The belly-band should be kept on for three months, or longer if the infant cry much, or if the weather be cold. Delicate children, we need scarcely say, require extra clothing—worsted shawls, spencers, etc. Shortening is usually *done in this country* at the end of three months. It

may be deferred until longer during the east winds of spring. The nurse or mother should see that the clothing is always well aired before being put on. The airing should be done some time before, instead of toasting the clothes—indeed, almost roasting them—just previous to dressing the child.

**On the qualifications of a Monthly Nurse.—**

The selection of the monthly nurse is of much importance, and ought to be done with the utmost judgment. A great variety still obtains, although there has been a progressive improvement during the last twenty years. Many lay themselves out for this important duty, who are totally unfitted by nature, or education, or character for it; they often simply take to the work just because they may happen to have failed in their own particular line, whatever that may have been. What would we think of a female who advertised herself as a milliner, when she had never learned to cut or shape a dress, or scarcely ever handled a needle? But absurd and bad enough as that would be, it is nothing compared to the assumption of a work demanding skill and character, and where the absence of these may lead to the sacrifice of frail life. A proper monthly nurse, then, should possess the following qualifications:—*First.* She ought not to be under thirty years of age. *Second.* She ought to have three months' training at least in a Maternity Institution, or under a properly qualified medical man. *Third.* She ought to furnish evidence of having a good moral character, and especially should be of strictly temperate habits. *Fourth.*

She should be punctual, active, kind, good-tempered, obliging, sensible ; free from crotchets, stupid prejudices, and self-conceit. *Fifth.* She must be civil, respectful, and strictly obedient to the medical man in charge, making it a point of conscience to carry out all his instructions in a painstaking and faithful manner. *Sixth.* While not being too dull or grave in presence of the mother in the lying-in apartment, she ought certainly not to be fidgetty, noisy, or boisterous ; nor must she on any account indulge in the too prevalent habit of reciting instances of what are called "bad cases" of midwifery, and not only reciting them, but exaggerating them in a shameful manner. Some are so thoughtless as to pile agony on agony in this way, even before labour begins, and thus doubtless in numerous cases to give such a shock to the pregnant woman as will injure her and interfere with parturition. And the retailing of hideous stories of mishaps after labour is accomplished, is no less to be condemned, for here again recovery may be retarded and thwarted.

The value and importance of the aforesaid qualifications are almost self-evident, yet it may be as well to give an illustration or two of the evils attending the absence of more or fewer of these. For example, slipshod and ignorant nurses often, from neglecting the proper bathing of the infant, produce painful chafings and excoriations of the skin ; and the careless use of pins leads also to much suffering. A child often cries, not so much from gripes as from pins and needles entering *its flesh*. No wonder : it would make an adult

scream. In the case of such nurses, the pin or needle would be more suitably implanted into their own flesh, instead of that of the infant who has the bad luck to be placed in their charge. If it did not reouse them to a sense of duty, it might awaken a sense of pain, which would be part punishment for the neglect of duty. Further, in regard to the evils resulting from a bad nurse, say one of intemperate habits, how many sad and fatal accidents have we known to accrue! A single glass of whisky in a nurse's head has often proved an infant's death. They will make the water too hot and scald the child, or hold its feet too near the fire and burn them, or handle it roughly and give it a painful twist; or they will let it fall and injure it permanently, or kill it. All these things have happened.

**On the qualifications of a Wet Nurse.**—Many mothers are unable, owing to a delicacy of constitution, to suckle their children, and have to resort to artificial feeding, or bringing up by the hand; but where they are in circumstances to afford it, a wet nurse is by far the best, that is, if she possess the requisite qualifications. Of course, it is the duty of a mother to persevere as long as she can; but often the milk is quite deficient, or ceases, or is actually bad, and therefore there is no help but in a substitute. A wet nurse should be selected by the medical man, who will see that she is possessed of a sound constitution. The nurse must not be scrofulous, or have swellings of the glands; nor must she be possessed of any taint of the *blood, such as syphilis*. This latter in particular must

be strictly inquired into, because it is difficult to detect it in many instances. We shrink with horror at the thought of a babe being suckled by a syphilitic wet nurse—it means the ruin of the child's health. The nurse must also be a temperate person—that is, as regards the use of whisky, or gin, or brandy; and on no account, either, must she use tobacco, or opium, or morphia. Inquiry is made by the medical man whether she menstruates during the suckling period; if so, she is ineligible. Nurses will deny this, and resort to numerous devices to hide the fact, but they will be sure to be detected. It is cruel of any one thus to act, for they are well aware that the milk is less nourishing to the infant, and that they are endangering its health. If the nurse have a child of her own living, light may be thrown on her own health by examining it. Notice whether it is healthy looking, not too pale, wan, or flabby, and see that it has no eruptions on its skin of a strumous or specific nature. The condition of the nurse's breast, more particularly the nipple, must be examined. If the nipple be very small, a feeble infant will likely be unable to grasp it. In such a case, despite the good health of the woman, she is rendered unsuitable. We note also the state of the breast itself. Are there any scars on it? If so, previous inflammation and suppuration have in all likelihood spoiled it for suckling purposes. If a small part of one breast only has been affected, we would not condemn the woman, provided she had plenty of milk and was otherwise healthy. *The best age for a nurse is from about*

twenty-five to thirty years, and it is preferable to have one who has borne two or three children. If possible, select a brunette, with all the qualifications previously indicated; one from the country, with the roseate bloom of health in her countenance, with a happy, easy, contented frame of mind. Lastly; a wet nurse's milk should not be much older than the milk of the child's own mother. We might employ one in all other respects suitable, whose milk was three months old (that is, for a newly born child or one a few weeks old); but we should prefer one whose milk was even younger, so to speak, than that.

**Diet of the Wet Nurse.**—The food which a woman partakes of has obviously much to do with the quality of her milk, just as is the case in the lower animals. Milk, for example, in these latter, taken from a cow that has fed on pasture in a low, marshy place, is not so strong or nourishing as that derived from an animal fed on the more vigorous herbage of a hilly or upland district. The milk of cattle, too, that are confined in town, and fed to a great extent on grass from damp meadows, and various artificial foods, is affected in various ways for the worse. But to return:—What is the fittest food for a wet nurse to receive? If she has arrived (as many do, owing to poverty) somewhat reduced in strength, a generous diet should be given without delay. Too much animal food, or highly seasoned dishes, or salted fish, or pork, or ham, should not be given, as they are too heating. There is a *prejudice* against giving the wet nurse vegetables, but

this is a mistake, for if we exclude cabbage, or greens, nearly all other edible kinds are safe, wholesome, and more productive of milk than animal food. Some put potatoes under ban, but we have never seen any harm in good potatoes. We should begin as follows:—A breakfast of tea or coffee, with abundance of second day's good wheaten bread and butter, with some oat-cake, if accustomed to it, or well boiled porridge with milk. The breakfast hour should not be later than eight o'clock; but before this the nurse may eat freely of bread and butter, say, if there be a craving, at six o'clock. For breakfast an occasional fresh egg, or bit of fresh fish, may also be allowed. Dinner should be about one o'clock, and there is nothing better than mutton broth, with plenty of barley or rice in it, following up with a slice or two of meat, and abundance of *second day's* bread. This may, and ought to be, varied; some days a steak or chop, with a little light ale or stout, being given. But meat should not be given every day. If a nurse gets plenty of good rich broth, with mealy potatoes, and plenty of bread, she will, all other things being equal, secrete an abundant quantity of excellent milk. Tea should be had at five or six o'clock, and consist chiefly of bread and butter in abundance. Supper ought to be partaken of not later than nine o'clock, and may consist either of porridge and milk, or panado, or cheese with bread, and half-a-pint of stout warmed a little, and to which a pinch of ground ginger may be added. *A late supper is not good either for nurse or child.* The supper may



be varied by the use of the farinaceous foods, such as arrow-root, sago, tapioca, or, best of all, Neave's food. If there is a tendency to flatulence, a little nutmeg may be put into the tea or the panado.

**On some duties pertaining to a Wet Nurse.**

—It is the duty of a wet nurse to be regular in her habits. If she sups at eight o'clock she should get to bed about nine. She ought, as a rule, to rise at seven. After breakfast she ought in fine weather to walk out with her youthful charge, even at the end of the first fortnight or so, seeing that it is not exposed to cold draughts of air or to the direct rays of the sun, or to the exhalations arising from any damp or dirty locality. Half-an-hour's turn will do. In the afternoon another outing should be had, say of an hour's duration, if the weather be fine. In walking out, the nurse must scrupulously avoid going to the residence of any friend or relative if they happen to reside in a low, impure, and unwholesome locality, or where infectious or contagious disease may be prevalent. A very young infant is not prone to catch such disease, but the nurse may bring home one or other of these to other members of the family, or she may be seized herself, and thus be rendered unfit for duty. Besides, she may bring back with her a quantity of vermin of an unpleasant kind. The child, too, in such excursions or visits is apt to be delegated to others not very careful—in indeed, very rough—in order to rest the nurse a little, and thus it happens occasionally to meet with mishap—it may be of *lasting* character.

**The Breasts of Mother and Child.**—Although this is not a book devoted to the diseases of mothers, it is scarcely possible to avoid making reference to what is so closely connected with suckling. We shall not, and cannot, say in these days of the bottle, that the female breast is an indispensable organ—we wish we were able to say so, but yet we trust that in many quarters maternal suckling is still viewed with favour; indeed, we are sure that this is the case. The mother's breasts often become unfitted for the purpose of suckling, apart altogether from her general condition of health, and a few hints as to the cause or causes may prove useful. Some mothers, owing to a congenital defect—that is, a born defect—of the nipples are quite unfitted for the duty. The nipple is too small, or it is deformed, or split up into different little bits, and though something can be done at times by means of suction to pull out and enlarge the nipple, there are numerous cases where this cannot be done, and a wet nurse or the bottle is the only other resource. The most frequent cause of imperfect breasts is inflammation and suppuration, or abscess, and this is more common in a first suckling than afterwards. But it may be so extensive and severe as to render the breasts permanently unfitted for their function. The most usual cause of inflammation is—not cold, as is the usual notion, but—the milk not running freely, or not being drawn freely. Some children are too weak to do so properly, and if, in such a case, there be abundance of breast milk, it will be liable to stagnate

and excite inflammation. A flat or imperfect nipple, as also a hard and inflamed nipple, operates in the same way by checking the run of milk. Persevering efforts should be made to make it flow by means of various tubes, or suction glasses, or getting a grown-up person to suck the breasts for a time. The nipple should be drawn out, too, and hardened a week or so before the child is born. Another cause of inflammation is cold, but, as before said, this is not so common. Sudden emotions, such as a fright, have also led to inflammation of the breast. Tongue-tie also prevents the child sucking properly, and thus the breasts get swollen and inflamed.

**Inflamed Breasts in Infants.**—Strange to say, this is a pretty frequent ailment in children, both boys and girls being liable. We have met with it often, and we have seen some infants suffer greatly. The cause is this:—there is a thin fluid-like colostrum gathers in the breasts and swells them out to a great size; if this fluid accumulates to a great extent, and does not find escape through the openings in the nipple, inflammation is apt to be excited. We have seen large abscesses result from the inflammation, almost destroying the child, owing to the quantity of matter or pus gathered, and which led to exhaustion. When an infant's breasts are seen by the mother or nurse to become swollen and red, or inflamed (and the nurse should examine every part of a child carefully), a dose of castor oil ought to be given at once, and then the swollen breasts should be besmeared with warm olive oil. The little nipples should be bathed with warm water, and the fluid in the

breasts pressed out gently three times a-day at least ; no rough squeezing—only gentle pressure should be exercised. When this is carefully and regularly done, the fluid comes away, the breasts lessen in bulk, and suppuration, or a gathering, is avoided. It is just the same as in the case of a mother's breast ; free exit must be got for the contained fluid if we wish to avoid inflammation and suppuration.

**Tongue-tie.**—We referred to the fact of children being too feeble to empty the mother's breasts, and now we must call attention to tongue-tie as another cause. This bridling of the tongue by a thin membrane happens very often. If the tongue is not very much bound down, the infant may take the breast well, and thus neither the attention of mother, or nurse, or doctor will be called to it. It happens often, therefore, that attention is only arrested when the time comes that a child should begin to articulate and to speak, and does so imperfectly. Let it be remembered then, that a child may take the nipple and suck very well, and yet be so much tongue-tied as to be rendered incapable of speaking perfectly when the time comes for speech. The moral or lesson is, that the nurse or medical man should examine the tongue of every infant under her or his care, and get the bridle cut, if existing, as soon as possible. It will contribute to, or ensure, better suckling, avert many an inflammation of the breasts, and many an instance of imperfect speech. There is scarcely a day passes during the cold season, when *called upon to examine* inflamed throats, but we come

across people who are tongue-tied. In the case of females it does not seem to affect speech much, if any; but there is no doubt that as regards males, many a man has been prevented becoming an orator of the first-class by the oversight of his mother, or nurse, or doctor.

**On the Diet or Aliment of Children; Suckling, etc.**—We may remark, at the outset, that the proper food for an infant is its own mother's milk; or, failing this, the milk of another mother, or wet-nurse. We may also here lay it down, that the sooner the child is applied to the breast the better. Some put off for three days, but this is a bad practice; for in the interval the infant is getting accustomed to the spoon, and then goes less readily to the mother's nipple. We recommend that the child be applied at least within twenty-four hours after birth. We know many who do so just after the babe is dressed, and such a plan answers well. There is a sort of electric influence in the breath of the child which woos the milk, and makes it flow all the more readily and speedily. The milk at first is not, it is true, very rich, being mixed with what is technically called colostrum, but by the suction of the babe the proper milk is quickly secreted, and soon comes away. Delay leads to hard breasts, to inflammation and suppuration. Although what comes away from the breast the first day or two is not pure milk, it serves the purpose of making the child's bowels act, and prevents also a resort to castor oil, a *practice* by far too common. As a very old writer

remarks :—"It is strange how people came to think that the first thing given to a child should be drugs. This is beginning with medicines by times, and no wonder if they generally end with it." In connection with suckling, we must not forget to state that the child should be applied alternately to both breasts. If confined to one, the other is apt to go wrong.

**Milk.**—We must now enter somewhat into detail regarding the mother's milk. Analysis shows it to consist of water, sugar, casein, and butter, with a few salts of various kinds, such as the phosphate of lime, etc. These are all blended in one homogeneous fluid, which is readily digested and assimilated, and contains every element necessary for the growth of the body. It is not only adapted for the infant's nourishment at birth, but is the most suitable diet for at least the first six months of its existence. Many children indeed get nothing else, and will take nothing else, for nine or even twelve months ; and provided the mother's milk be good and abundant, the child or children thus naturally fed are generally the most blooming, contented, and robust. We have seen many children of enormous size fed for twelve months almost solely on breast milk.

**The Quality of the Mother's Milk.**—This varies very much, and it is often difficult to determine whether it is good or not. It requires an expert medical man or chemist to settle the point. He examines it by the microscope, and if he finds it unhealthy he stops the *suckling*. He inquires into the history of the mother,

whether she may or may not have inherited some blood disease. The milk may look tolerably well, and yet from constitutional causes on the part of the mother, it may prove not only not nutritious, but of a positively hurtful character. This is frequently notified by the fact of the child not thriving on it; nay, absolutely suffering and starving under its use. Instead of the infant fattening, it wastes and withers, groans and moans, and is never contented or satisfied. Mothers will say, and truly, that they have plenty, but that abundance may not be of a perfectly normal or healthy character; may indeed be positively detrimental. The mother may be healthy on the whole, but many trials and causes of mental agitation will at times arise and injure the quality of the maternal milk. The most common causes of bad milk are scrofula and syphilis, and diseases of the stomach, liver, and spleen.

**What to do when the Mother is Incapable of Suckling her Child, whether from Weakness or Constitutional Disease.**—When a proper wet-nurse cannot be had or afforded, the only other course or resource is the bottle. That means the milk of the cow, as a rule, although now-a-days Swiss or Condensed milk is much employed. When cow's milk is used it is of extreme importance to get it regularly from *one* cow. This should be hard striven after, because a mixture from different cows has been found by experience to lead to numerous ills. Indigestion and severe gripes, vomiting, diarrhoea, and convulsions have been found to be common results of the employment of

mixed milk. The parents should go to a thoroughly respectable dairy, and arrange that a certain quantity of milk from the same cow be sent twice or thrice a day. The Condensed milk suits some children, but disagrees with others.

**The Bottle, etc.**—The milk of the cow—of one cow, as previously remarked—is too strong for the infant, and requires to be mixed with water (lukewarm) in the proportion of one part of water to two of good milk. This will not be too strong as things (in regard to the quality of milk) go. Very little sugar should be mixed with it; it is preferable to put in a few grains of salt instead. If the bottle is made too sweet or sugary, the child will be inclined to take too much and overload the stomach; the result being pain in the stomach and bowels, vomiting, diarrhoea, etc. The child should not have the bottle, or rather the teat, always in its mouth; it is sufficient that it be supplied with it every two hours during the first month, and every three hours when it is in the second month. To amuse it, if it be a restless and, so to speak, ill-to-do-with babe (which generally means a condition of unhealth), a very good plan is to tie a little bit of moistened wheaten bread into a piece of muslin shaped like a teat, and allow it to suck away at the article as long as it likes. This generally pleases it thoroughly well, and of course the stomach has time given to it for rest. As regard the kind of bottle to be employed, the best is that fitted up with Kay Brothers of Stockport's tubes, with patent glass valve. These



tubes, which are adapted for all bottles, prevent the infant from sucking air, a great evil before the invention of them, as leading to flatulence—the filling, in short, of the infant's stomach and bowels with air or wind. When children are brought up with a feeding-bottle with indiarubber tube, sickness and vomiting are occasioned, owing to the food every time they cease sucking, falling back into the bottle, the tube being meanwhile filled with foul air, which has to be sucked out before the child can obtain more food. This foul air is fitted to sicken even an adult. Kay's tubes must be recommended then as a most ingenious and invaluable invention, and doubtless, speaking deliberately, much disease, suffering, and even death have been averted by the simple contrivance. We may add that where indiarubber fittings are employed, they ought to be made of pure unvulcanised black tubing, this being free from sulphur, and the generation of offensive sulphuretted hydrogen avoided. The bottle should be cleaned out carefully several times a-day. We must not forget to call attention to the temperature of the milk when the bottle is employed. This should be the same as that of the breast-milk, viz., 90°. Some careless or ignorant people make the bottle milk either too hot or too cold, hence wind, gripes, and pains in the bowels often arise.

**On the Milk of City-fed, or Stall-fed Cows.**—The milk of cows feeding on natural pasture is far more wholesome than that of animals confined in byres in a town and fed on draff, etc. In the latter case the

milk speedily becomes sour, and should have a little lime-water added to it. Many diseases of the stomach and bowels in children arise from the use of the milk of town-cows.

**On Artificial Food, the Bringing-up of Children by the Hand, etc.**—Milk (whether the mother's, which is the best, or cow's, or asses', or goat's) is the best diet for the first nine months, but after this period a child may be with benefit treated to different food—indeed, frequently before this time. The stomach and bowels of children become stronger, more muscular, and other and less simple food than milk is partaken of with advantage. Moreover, that other and more solid aliment is then required is indicated by the appearance of the teeth, and usually this event happens from about the sixth to the ninth month, sometimes sooner, sometimes later. Now, it is of the utmost importance to know the best kind of food to be given, that is, to be superadded to milk, which should still form part of the child's diet. If asses' milk, which is the nearest in composition to the mother's, or goat's milk, which is next best, cannot be obtained, we must have recourse to other and less simple, or more solid food, as before said. There are a great many varieties; rusk, arrow-root, sago, corn-floor, bread-crumbs boiled for an hour or two, barley water, gruel, lentil powder, etc. These, one or other, suit some children, but disagree with others. After twenty years' experience, and on the testimony of many distinguished chemists and medical men, we have been in the habit of recommending the

farinaceous food of Neave of Fordingbridge. It has been proved by Dr Lankester and others to contain in due proportion the flesh-forming and heat-giving elements of food. Dr Letheby and other chemists also recommend it as one of the best of foods. He says it is remarkable for the large amount of the three principal constituents which it contains, viz., flesh-forming matter, respiratory matter, and saline matter; in short, all the constituents necessary for nourishing and strengthening the body. The starchy foods, corn-flour, etc., are deficient in proteinaceous and flesh-forming ingredients, and thus are practically worthless; but in the case of Neave's food, we have, as before said, everything requisite for sustaining and building up the body. When the mother's milk becomes deficient in quantity and poor in quality, say about the fifth or sixth month, we recommend Neave's food as a substitute; perhaps in some cases using cow's milk at the same time; and in any case, whether the infant may have been suckled by mother or wet-nurse, or brought up on the bottle, this food should be given when the child is six months old. A further advantage of Neave's food is this, that it keeps the bowels regular without irritating them, as is the case in general with oatmeal-gruel or oatmeal porridge. Let us then impress upon the mothers and nurses the necessity, when food other than milk must be given, of selecting one such as that of Neave, instead of the starchy materials or compounds, because the former goes to *form not only* flesh, but bone, while sustaining and

promoting animal heat ; whereas the latter are inadequate to these great and indispensable ends. The evidence of numerous medical men of high standing is to the effect that many children suffering from atrophy or wasting have been restored by the use of this food. We may seem to have dwelt at too great length upon it, but in this work it is our aim to point out the best of everything in the shape of medicine or diet, or other appliances and means necessary for curing disease and promoting the health of the young. We had almost forgot to mention that when porridge of oatmeal disagrees with the mother or nurse, Neave's food may be substituted with advantage. It sits more lightly on the stomach, digests more readily, gives rise to no sour or acid eructations ; while at the same time it nourishes and promotes the secretion of milk. This is a very important consideration, for it is often as necessary to know how to feed a mother with a dyspeptic, irritable stomach as to feed an infant deprived of a mother's or wet-nurse's milk, and pining and wasting away under bad cow's milk, or improper and ill-adapted food.

**The Nursery.**—The selection of this apartment is of great importance. It should be one of the largest rooms in one's dwelling, possessing the indispensable prerequisites of abundance of air and light, with the means for proper ventilation. There are many families so placed that it is impossible to have a nursery of this kind, and we can only say it is a great pity. The poor have in *many cases only* one room, which has to serve

the purpose alike of kitchen, bedroom, washing-house, and nursery—a most unwholesome arrangement. Even among many of the middle classes the nursery consists only of a confined parlour, with, it may be, a low ceiling, with little light, too limited breathing space, and imperfect means of ventilation. Sometimes there may be no chimney, or if it exist, it is thoughtlessly stuffed up in order to exclude the cold. In such instances the atmosphere of the room becomes necessarily impregnated with impure and hurtful air. There are no better means of ventilating than having the windows frequently thrown open at top and bottom during the day, and the smaller the apartment the oftener should this be done, more frequently, too, in summer than in winter. Thus the vitiated air is expelled, and fresh supplies of pure air admitted. If the residence be in a large, crowded, smoky town, the higher up in a tenement the nursery is placed the better will it be. In connection with the window or windows, it is usual to have an iron railing placed outside to prevent accidents. Many children have been killed by falling out of a nursery window. It is not long since a grandchild of Queen Victoria thus perished. When children are out airing, the windows should be thrown open until they return; but when unable to be out at times, they may be removed for a time into another apartment, during which the ventilating of the nursery may be carried out. When the weather is warm the windows may be kept open at the top for hours, even although the children are in the nursery. Abundance of fresh,

pure air, then, should be sought; it is indispensable to proper health and to the due development of the child. As regards light, the great importance of it alike to young and old is, we think, in many cases imperfectly appreciated or understood. Mothers and nurses may have a due estimate of the value of pure air, but light is an article that rarely impresses them. Now, let it be kept in mind that light is equally valuable with pure air in regard to the health and growth of the child. Light gives tone and tension to the muscular fibre, and promotes the vigour of the body. Where light is wanting scrofula is engendered, and human deformities arise. The heating of the nursery is of importance. In summer, provided it be not a cold and wet one, a fire may not be required. A thermometer should be kept in the room, and if the temperature is kept at 58° to 60°, that will do. If the sun or the season is equal to this, then no artificial heat is required. In very cold weather, in winter and spring, a good fire is necessary—a good, cheerful, blazing coal fire in an open fireplace, with proper chimney. Stoves are deleterious, because they tend to the accumulation of a heated air—one charged with noxious gases, injurious to health. Where a fire is there should also be a fire-screen, because children often play with the fire and get fatally burned. It is well known that “burnt bairns dread the fire,” but then they may be so severely burned as never again to be required to dread either fire or any other mundane thing; in short, they succumb to the *accident*.

**The Cleaning of the Nursery** is of much importance. If there be a tile wall (which is the preferable), or a plastered and painted one, it ought to be washed down once a-week. The floor also ought to be frequently washed, the children being sent out until it is properly dried. It ought to contain no carpet. A nursery should not have papered walls. Paper, apart from its intrinsic poisonous properties (that is, in regard to the green-tinted kind), is apt to absorb human exhalations, which after a time become decidedly detrimental to health. Then, when paper exists, you cannot possibly clean the walls without its removal. Let no nursery, then, have paper on its walls. It is now so well known that we scarcely require to mention that the green papers, containing as they do a good deal of arsenic, have frequently led to poisoning. Perhaps there has been no little exaggeration indulged in with regard to the poisonous influence of green paper, but yet in the nursery a child, while not being injured much, if any, by inhaling the air which to a slight extent is impregnated with it, may tear off a bit of paper and suck it to his damage, if not to his death. It is proper and necessary, then, to keep clear of all papers, particularly green ones. Care should be taken as regards other articles and appliances in a nursery. Lucifer matches should not be left within young children's reach. They may suck them and get poisoned (we have referred to this elsewhere in this volume), or in gleeful sport may strike them and burn themselves seriously, if not fatally. Painted toys are not alto-

gether safe, for children will often suck them also to their hurt. Pictures hung on the walls render the nursery cheerful, and may be made to educate as well as please.

**Dentition, or Teething.**—The time when teeth appear is very variable. Children sometimes have a couple when three months old, but usually it is six months before any appear. It may be so late as fifteen months or more. On the other hand, children have been born with one or two. King Richard III. is said to have been born with some teeth, and, as the great man who foreran the ages says, was able to “crunch a crust at two hours old.” We question whether this is genuine. We must not look upon those cases where children are born with teeth in any other light than as a *lusus naturæ*—a freak of nature,—the same as happens in advanced age, where people with one foot, so to speak, in the grave, get new teeth, new hair, and new eyesight. There is a wide belief among mothers and nurses that the time of teething is one environed with peril. Now, this has a certain amount of truth connected with it, many children, for instance, having cough, diarrhoea, and convulsive affections at the time of the cutting of the teeth. But, as has been observed by a great writer, “this period is one wherein there is a most active development of the organism,” and where other irritating influences, apart from dentition, may lead to those disorders. In a healthy child (but, alas, how few are up to the normal standard !) the breeding and cutting of the teeth should not cause any more



annoyance, discomfort, or suffering than the growth and development of any other part of the body. That dentition does lead to suffering simply proves that the constitution is abnormal, for the Almighty never meant any part of the frame to be developed under pain.

**What is the Order in which the Teeth appear?**

—We generally have two middle incisors in the lower jaw first; it may be at the fourth month, or it may be at the sixth, or eighth, or ninth. Then upper incisors appear, afterwards the other incisors. After this we have the first four molars, then the eye-teeth, and lastly the remaining four molars or double teeth, the whole being complete (*viz.*, twenty in number) about the age of two-and-a-half years. These twenty are the deciduous, or milk, or falling teeth. When children are cutting their teeth they generally *salaver* much—that is to say, they salivate considerably. The spittle or saliva runs profusely, and they put their fingers into their mouth as if endeavouring to hurry on the process of cutting.

*The permanent teeth.*—When the milk teeth decline and waste, we have the permanent ones pushing their way, usually about the seventh year. The number of these is thirty-two, sixteen in the upper and sixteen in the lower jaw. They generally come more easily than the milk or deciduous teeth; there are rarely those constitutional disturbances, such as diarrhoea, startings, sleeplessness, or convulsions.

**Treatment of Teething when it is abnormal.—**

*When children cut their teeth easily, as they do when*

healthy, no treatment is necessary. There is usually, as remarked, some slavering, and there may be a little diarrhoea, but when these are moderate there is no use for interference in the way of medicine. If an infant is continually putting his fingers into his mouth, give him some substitute, such as a crust of bread, carefully watched (in case of choking), or a gum-ring, a piece of liquorice root, or any other moderately hard article that will not break readily. The crust of bread is, on the whole, unsafe; we have seen infants nearly choked by it. If diarrhoea be profuse, and continue for a week or so, check it gradually with lime water, and with isinglass and barley water. View it, however, in most cases as a safety-valve, and don't be in too great a hurry to arrest it.

*The cough of teething.*—We have often a hard, dry, ringing cough during the cutting of the teeth, especially when there is no looseness of the bowels. What should be done with it? Not much; a plaster of pitch and belladonna may with benefit be applied between the shoulders, but there is not much need for medicine internally. The cough, like the diarrhoea, must not be much meddled with; only when they are excessive do we interfere. Then some ipecacuanha wine should be given—that is, for the cough.

*Convulsions during Teething.*—These are not infrequent when teeth are tardy in pushing through. When this complication—a grave enough one—arises, the nurse is sure to ask the doctor if he had not better *scarify the gums*. Let him not too readily do this.

The finger-nail or a thin sixpence, or rubbing and abrading with a silver thimble, will give an outlet to the tooth preferable to that produced by the gum-lancet. If the medical man select scarification, he ought to perform it with much care. A cross cut (or crucial incision) is indispensable. This, as in the case of carbuncle, prevents the opening from healing again so quickly, and enables the shooting tooth to peer through. We know that it is alleged that cutting or scarifying the gum does harm instead of good, when the tooth does not appear soon after. It is said that the cut part closes again quickly, and in closing becomes so hard as to offer an obstacle to the approach of the tooth. We believe that there is truth in this when only a single cut is made, but it is different when a proper crucial incision is effected, and when the incisions are made at the fit time—that is, when the tooth or teeth are struggling to get through. A man of experience knows the suitable time, and does not at the bidding of parent or nurse perform the trifling operation prematurely. When the gums are swollen, red, and inflamed, the infant evidently suffering pain, as in toothache, and although there may be no threatening of convulsions, no cough or diarrhoea, it may be the duty of the doctor to effect a slight incision to relieve the inflammation of the gums. This will often give relief, and convert a pained and fretful child into a contented, merry, and happy one. *Plenty of fresh air* helps the development of the teeth greatly.

**Skin Eruptions during Dentition.**—We have

referred to these in another part of this work, but we may notice them briefly here. Vesicles and scabs break out on the head and face, and cracks and chaps occur behind the ear and on other parts. Some persons say there is no harm in healing them up; we beg humbly to say there *is* harm in so doing. Convulsions arise from such practice, and water in the brain, and other affections also of the nervous system. Let no healing or drying up material be applied; only wash the parts with some nursery soap, and shower plenty of cold water on them. Nature in time will effect the cure. We have seen many victims of the sharp practice of healing up too suddenly.

**Thrush.**—This is an affection of the mucous membrane of the mouth and contiguous parts. It consists of numerous white specks or spots (like curds) with an inflamed basis. These exist on the lips, the tongue, and the palate. The mouth is hot and the child is rendered unable to suck. It is not at all a grave complaint, and might be avoided by not using too much artificial food. Teething may induce it, but non-natural feeding has more to do with its causation. Treat it by careful dieting; give magnesia and lime water, and apply borax and honey to the ulcerated parts.

**On Hereditary Causes of Disease. Diseased Parents, Hereditary Resemblances, etc.**—Many infantile diseases arise, or are occasioned by infection, or contagion, by bad sanitary and hygienic conditions, poor *feeding*, *maltreatment* in general, etc., etc. But

let it be emphatically noticed, that a vast deal of disease in the young arises solely from an unsound condition of one or other of the parents. It has often been truly remarked that we cannot look for a rich crop out of a barren soil, neither can we expect a healthy progeny from diseased, or weak, or incompatible parents. It was wont to be believed that the mother's health had most to do with the child's health; that is to say, if she were healthy, her offspring would also be sound. After twenty years' experience we have no hesitation in pronouncing this to be a complete mistake and delusion. We have seen numerous healthy mothers bring home, or rather be delivered of, poor, puling infants, and all owing to the thoroughly unsound condition of the father, or to incompatibility. A father living a dissipated life cannot expect a healthy offspring: he must know this, or at least ought to know it. If he knows that he is in an unsound condition it is wrong on his part to marry; at least until he shall have adopted the best means available for being cured, and have got cured. Many men are cognisant of the evils which are sure to arise, but we have seen not a few cases where there was the grossest ignoring of these. We have been aware of persons marrying who were suffering from diseases of a horrible nature, and which were certain to kill them within a short period. These same individuals were actually so blind to their own state as to wonder how their child or children were always complaining. This is far from what should be. To use a common expression, can children be like

nearer friends than their own parents? Yet we are bound to say we have made enemies by proclaiming this truth. As regards incompatibility, there is little doubt that if an elderly gentleman marries a young lady, the children are likely to be feeble (or scrofulous), and the same is true in the case of cousins marrying. From incompatible marriages (that is, from discrepancy of age and the intermixing of blood relations), scrofula, insanity, etc. spring. We know that blind people propagate blind children, and gouty and gravelly parents entail the same on their offspring. Phthisical or consumptive parents also produce children liable to lung disease, to brain disease, and various other fatal disorders. We might illustrate the importance of this subject, and the undoubted truth of our assertions in various other ways, but there is not much space; suffice it that we notice an example or two. There are striking family likenesses handed down from generation to generation. There is what is called the hereditary thick lip of the Imperial house of Austria; and there is a remarkable resemblance between some of our own Royal Family and that of their ancestress Nell Gwyn. Then we have children born with six fingers or six toes, or with hare-lip, web-feet, and split-palate; or with various mother's marks, and whose ancestors were equally deformed. Great memories, sharp intellects, musical gifts, and other artistic qualifications are thus handed down. When we see a young person's hair become early grey, ten to one his ancestors' hair similarly behaved. The same is true in regard to the

premature decay of teeth. But we need not multiply illustrations.

**Snuffles, or Coryza, or Stuffing of the Nose.**—

Some children are extremely liable to this, being no sooner cured than affected again. It is owing to a weakness of the membrane that lines the nose or nasal passages, and which is usually the result of a delicate or scrofulous constitution. It occurs also in a more severe form in connection with scarlatina and diphtheria; as also measles, bronchitis, and syphilis. It is a troublesome ailment, because it prevents the patient from breathing, so to speak, through the nose, often when, from a choking up of the more important air passages, this is very essential to proper respiration or breathing. It is very prevalent in young infants, and very intractable when the blood is tainted by syphilis.

*Treatment.*—The treatment in children who are every now and then catching snuffles, or cold in the head, is to give them chemical food and cod-liver oil, with plenty of cream and mutton tea. Fine, dry, pure air also, and abundance of outing in the open air. When the trouble is the result of scarlet fever or other serious disease, local applications have to be resorted to. A little glycerine may be applied with a camel's hair pencil up the nostrils, to begin with; afterwards a solution of nitrate of silver, two grains to the ounce of distilled water. Another useful solution is, alum, four grains, glycerine, two fluid drams, water, six fluid drams; mix. The lotion ought to be applied every four hours. In syphilitic coryza, we may give a little

grey powder occasionally, and apply a little mild citrine ointment to the nose.

**Mumps, Branks, or Inflammation of the Parotid Gland**, is an affection very common at times among the young. We have epidemics of it just as we have of measles, etc.; and where children are congregated, as in large schools, few escape. Happily it is not at all a serious disease. In some rare cases the head becomes affected by the trouble migrating or shifting to the head (what is technically termed metastasis), but, as we have said, this is very uncommon. Children under five years of age are rarely affected by it.

*What are the symptoms and signs in Mumps?*—The disease begins with the symptoms of a common cold, and the patient complains of pain about the lower jaw and stiffness of the neck. By-and-by a swelling is observed on one or both cheeks, before and under the ear or ears, and extending down to the chin. Looking straight into the face of the little patient, you would just imagine that he or she had become suddenly fat in the face. The swelling of the cheek is sometimes a little painful, but many children complain of no pain. The harder the swelling the greater the pain. It is to be noticed that this swelling does not go on to, or gather into, matter. In some severe cases there is difficulty in chewing or masticating, in others the patient can take the ordinary food without difficulty or pain. The disease is generally over in a week, but it may be prolonged for from ten to fourteen days. The child should be kept from school for a fortnight.



*Treatment.*—The treatment, like the disease, is simple. At the outset give a little laxative medicine. Apply to the swelling gently three or four times a day warm camphorated oil or chamomile infusion, and wrap the cheeks in flannel. If the disease spreads to the brain, which will be indicated by delirium, let a medical man be called in. If not, the prognosis is good for this, the ailment being simple, and the vast majority of cases passing off at the end of a week without any treatment whatsoever beyond the dose and a little fomentation and flannel. As to the diet, there is not much need in simple cases of departing from the ordinary food.

#### **Inflammation of the Lungs, or Pneumonia**

This is a disease of great frequency among children, attacking robust children as well as those of a feeble constitution, and cutting off as large a percentage of youth as almost any other disease. Although it may attack a child perfectly healthy, it is apt to follow the course of other diseases, such as measles, whooping cough, and typhoid fever, and to complicate and aggravate them greatly. It may attack infants a few days old, and it occurs often during teething. The younger the child, the greater is the danger. Above all, it is more readily curable.

*Symptoms and Signs.*—Dry, short, hacking cough; greatly quickened and oppressed breathing, the child gasping for breath; hot and dry skin, rapid pulse, and feverishness. There is much pain with the cough, which may be noticed by the infant trying to check or

it, as also by the pained expression of its face, and by its sharp cries after the cough is over. There is also, when this disease begins, a restlessness and fretfulness, a disrelish for the breast or for food. The child may seize the nipple and draw a little, but it soon ceases, evidently owing to the pain of the chest, to the shortness of breath, and to the heat of its mouth and throat. Other signs we may note are, the child lying with its mouth widely open, and its nostrils playing more quickly and widely than usual. But these signs also occur in other chest affections, such as bronchitis. Speaking of this latter, we may remark that mothers and nurses frequently confound inflammation of the lungs with it. Almost any cough with them is set down to bronchitis. This shows the necessity of always securing skilled aid when a young person has a severe cough.

*Treatment.*—Before the doctor arrives, give a good, brisk, purgative dose, either of castor oil or of rhubarb. Place the child in a warm room, and have well-warmed blankets in its cot. Wring flannel out of warm water into which a little mustard has been placed, and apply it completely around the chest. This must be frequently renewed, without the mustard. See that the child has plenty of breathing room; that is, let its mouth and nostrils have free play, and let the chest have scope for due expansion. I have seen many people so stupid as to place a poultice about a pound in weight over the chest of a child, thus oppressing its breathing greatly. By-and-by, linseed-meal poultices

come to be useful ; but they should be applied back of the chest, where they will cause no action or oppression. Some ipecacuanha wine given every four hours with safety and benefit. The question of bleeding or blistering must be settled by the physician. It is now rare to bleed in this way, but a few leeches over the breast, in a very young child, or weakly ones, should be avoided. As regards rising blisters, these must be used only under the supervision of the doctor, because children often suffer greatly from them, the deeper parts being destroyed, and extensive ulceration and sloughing resulting, with fatal issue. The blisters should be light the first few days, afterwards more nourishing, giving such as beef-tea, mutton-weak, etc. *When the patient recovers from the attack, he recovers completely, no weakness of the system, no predisposition to subsequent attacks, as in the case of being entailed.*

**Bronchitis.**—This is an extremely prevalent disease in Britain, multitudes of children suffer from it from time to time. It consists of an inflammation of the membrane (the mucous membrane, termed) which lines the bronchial tubes of the lungs. It is more frequent than the previously described disease, pneumonia, although not more fatal. It is more amenable to treatment. Yet it is more liable to a return than is the case with any other disease. The cause is usually exposure to cold.

generally after a child has been heated beyond the natural extent.

*Symptoms.*—These, in the milder form, consist of a slight cough, with stuffing of the nose. There is râles, or wheezing, over the upper part of the chest, with some difficulty of breathing. The cough is at first dry, but soon becomes moist and softer; yet it is never so painful as in the case of inflammation of the lungs. There is no such panting for breath as in pneumonia, and no such abnormal action of the alæ nasi, or nostrils. The countenance, moreover, has not the same pained expression during or after the cough. The pulse is not so much accelerated, and the same is true in regard to the respiration or breathing. The wheezing, or “rattling,” heard when the ear or stethoscope is placed, especially over the back, determines the disease. Children seized with this ailment become, as in the case of pneumonia, fretful, peevish, and cheerless; they take the breast badly, the want of breath, as well as the want of appetite, interfering with natural or normal application.

*The More Severe Cases.*—Here the cough is much more severe, and the breathing much more difficult. There is more restlessness, fretfulness, feverishness, and sleeplessness. The cough comes oftener, and there is a more abundant spit, sputum, or expectoration. Some cases of bronchitis, such as those happening in very young and delicate children, are liable to a sudden aggravation. The respiration or breathing becomes suddenly much oppressed and quickened; the child

gets drowsy and pale; the extremities become cold the face pinched, and the lips blue; food or the breast are refused, or taken with difficulty and disrelish. When these phenomena arise, they indicate collapse of the lung texture, whereby the air is prevented from entering the lungs, and thus death more or less quickly ensues. This form goes by the name of Capillary Bronchitis, or Suffocative Bronchitis.

*Treatment.*—In the absence of a medical man, the following directions may be useful, and ought to be set about at once, as it is a disease that can be often checked if treated early, and which, if not, is much more difficult to deal with. Give a good dose of laxative medicine, and when this operates, give an emetic or vomit of ipecacuanha wine. Put a large linseed-meal and mustard poultice over the back of the chest, keeping it on until the skin is reddened, and renewing every hour or so the poultice without the mustard. Rub the front of the chest with warm camphorated oil, and cover it with cotton wadding. If the child does not vomit within an hour after giving the ipecacuanha wine, it must be repeated, and vomiting encouraged by warm water drinks, or in infants by applying them to the breast. If free vomiting is secured, there will likely be considerable relief as regards the symptoms, but we are to continue small doses of the wine every four hours. In children above one year old, and where the spit is very tough, we combine a little syrup of squills with the wine, in order to promote expectoration. A little glycerine, olive oil,

and honey may be given to soothe the dryness of the mouth and throat; or some acid jelly or fruit, such as grapes or roasted apples. If the case turn out a severe one, blisters may have to be employed, using for the young the blistering paper instead of the plaster. But they must not be applied in the case of very young infants. In the suffocative form of the disease, liquid blister should be used, because no time is to be lost, and this will act well in a very short time. The diet should be light the first day or two; afterwards very nutritious, such as sac-whey, beef-tea, etc. The disease lasts from ten days to three weeks. Children ought not to be allowed out for several weeks, unless the weather be very fine.

*Preventive Treatment of Bronchitis.*—Some children are very prone to this disease, and liable to relapses or recurrences of it; and this is scarcely to be wondered at, where they are delicate, in a changeable climate like ours. Are there any means of prevention, then—any hardening process, so to speak? We must, in the first place, endeavour, by tonics and by hygienic influences, to improve the strength and vigour of the body. Plenty of good flannel should be worn, and exposure to damp and cold avoided. There should be no hurried rushing from heated rooms into a cold atmosphere. Though properly clothed with flannel next the skin, and adapted so as to embrace the throat, there should be no such massing of raiment as to keep the child in a continual stew. Many flannel shirts and shifts are defective in *this* respect, that they leave the part above

the top of the breast—between this part and the throat—quite bare. This is a stupid blunder, and one which produces innumerable cases of bronchitis. In addition to the foregoing precautions, sponging the chest is of much value as a preventive. The water in winter should be tepid, and sea-water is the best. In summer, cold sea-water should be sponged on every morning. When sea-water is unattainable, we may use the various artificial preparations—rock salt, common salt, etc. This ablution of the chest, done daily and systematically, is of eminent service. If a child has a tendency to shivering afterwards, in the case of cold-water sponging, let it be made always tepid. Rubbing vigorously with a towel afterwards keeps down the tendency to shivering, and promotes a nice glow and reaction. If delicate children continue to have relapses, they should be put under a course of the syrups of iron and cod-liver oil. Their diet should consist of milk, fresh eggs, and, daily, of a little good bacon, with not too much of the fat to begin with; also, plenty fresh butter on their bread. A course of oil inunction—that is, rubbing oil into the chest—once a-day for at least ten minutes, does good. Either cod-liver oil or neat's-foot oil should be employed.

**Catarrh.**—This consists, in its widest sense, of an inflammation of the mucous membranes of the body, with a running or discharge of mucus; so that bronchitis, etc., may be, and is by some authors, termed Catarrh. Coryza, which we elsewhere described, is also a catarrh. But the catarrh which we mean to

treat of here is that form which is ordinarily termed a cold in the head, throat, and chest. Children are not very liable to it the first month or two, but afterwards they are increasingly so.

*Symptoms.*—It usually begins with a shivering and sneezing, headache, watery eyes, and feverishness. The throat is sore, hot, and dry at first, and there may be backache and pains in the legs. There is a tight feeling across the chest, and over the whole body; in fact, there is a stiffness and a soreness, as if one had been beaten with sticks.

*Treatment.*—Children during teething are very liable to this, and it is well to see into the state of the gums, helping through a struggling tooth by abrasion with the nail or with a thimble. To prevent the ailment deepening into bronchitis, or into some affection of the bowels, use the following precautions:—Give a warm bath early, and confine the child in an apartment well aired and of uniform temperature. There is usually much thirst; so he must not be allowed to suck too much, whether of the breast-milk or of the bottle. This would overload the stomach and aggravate the trouble. A little arrowroot or barley-water should be given as a change. A few drops of ipecacuanha wine may be given; and, to a child a year old and upwards, a little James's powder and Dover's powder.

*Influenza, or Epidemic Catarrh.*—We have epidemics of influenza among the young when there is no such thing raging amongst adults. These are frequently *not* very severe, but are at times the



forerunner of other diseases, such as measles and hooping cough. When influenza exists as an epidemic among adults too, children are liable to suffer more severely, there being high fever, sometimes delirium, and occasionally convulsions, alternated with an overpowering drowsiness. Some epidemics have been attended by a condition of fatal collapse.

*Treatment.*—The same as in the catarrh previously described. We have to watch against the probable onset of inflammation of the lungs or bronchitis; and if, as in some epidemics, there be any tendency to collapse or exhaustion, the careful use of stimulants is required.

*Pleurisy.*—This disease consists of an inflammation of the membrane that covers or invests the lungs. It is not a very common affection in children under five years of age, that is to say, unless it comes on as a consequence of inflammation of the lungs (pneumonia) or scarlet fever. The disease is often fatal in early life.

*Symptoms.*—Severe chest pain, making the child cry, hurried breathing, short cough, rapid pulse. The child is restless, struggles, and tosses about, and when it selects any particular posture, does not like this to be altered. Any alteration or shifting of the position causes distress, and is thus of necessity resisted. The upright posture seems always the most comfortable. There are certain sounds heard on applying the ear or the stethoscope to the chest, but the unpractised hand cannot segregate them from other sounds. The danger lies in the effusion of fluid, which is sometimes great.

When very abundant, tapping or letting out the fluid has to be resorted to.

*Treatment.*—The treatment is much the same as in pneumonia and bronchitis. It is a disease demanding the best skill, so that to enter into details under this head, is neither proper nor necessary.

**Phthisis, or Pulmonary Consumption.**—The term Phthisis signifies a wasting or consuming of any part, but it is now generally applied to a wasting, or disintegration, or ulceration of the lungs: what is usually termed Consumption. In the young there are some differences, as compared with the adult, and which we shall endeavour to point out. The disease itself consists of a deposit of what is called tubercle in the lungs—a greyish-coloured, morbid substance, of a rounded form, about the size of millet seeds. There is another form of a yellow colour, consisting of larger masses. Although tubercle is so frequently deposited in the lungs, it is found to attack various other organs of the body, such as the brain and different glands; but these we treat of elsewhere. When tubercle once exists in the lungs it is a serious matter, and likely sooner or later to kill the patient, but yet it is well known that sometimes it remains dormant, at other times it shrinks, and hardens, or calcifies, and gives no further trouble. Happy is the patient in whom this hardening process takes place! Unfortunately, however, this is rare, the more common course of it being to soften; and it is this softening which leads to the ulceration, and breaking up of the tissue of the lungs,

with almost certain fatal issue. We may state that boys are more liable to this disease than girls.

**Erroneous opinions regarding the age at which it occurs.**—There is a wide popular belief that consumption rarely attacks children. This opinion at one time existed in our profession too, for there are works on the diseases of children in which the disease is not even mentioned. Now there could not be a greater fallacy, because it has been proven that no age is exempt. Children, with whom alone we have to deal here, are frequently affected by it, although there are some differences as regards its course, etc., in their case. These we shall now briefly point out.

**Children differently affected from Adults.**—*Firstly*, in children, the deposit of tubercle is not so exclusively confined to the lungs. It attacks other parts much more frequently, such as the brain (rare in adults, if ever), the mesenteric glands (belly), the liver, the kidneys, the spleen, and the stomach. The deposit of the morbid material in these parts may lead to wasting and death, without almost any chest trouble whatsoever. *Secondly*, another difference is this, that tubercle in the lungs in children under six years of age, seldom causes ulcerations or cavities.

**Is Consumption infectious?**—Much diversity of opinion exists in regard to this; but our own practice has been to recommend the isolation or separation of a consumptive child from the other members of the family; we mean that they should not sleep in the same bed.

**Causes of Consumption.**—The disease is in

numerous instances hereditary ; it is transmitted from parent to child. A father and mother will sometimes say, "We have good chests, we do not suffer from a cough ; yet here is our child wasting away before our eyes." This may be the case, but *their* parents may not have been equally free. Again, if the parents are free from lung disease, they may yet possess other ailments or defects which may entail a tendency to consumption on their offspring. These may be various unhealthy conditions of the blood, such as syphilis, mercurial taint, gout, anæmia, chronic lead poisoning, etc. Then the father may have been old and debilitated before he married, or though not very advanced in years, may have lived a dissipated and sensual life. In such circumstances it is but reasonable to look for a frail offspring. The mother's health during pregnancy, too, plays an important part. If she happens to live too freely, or is chronically dyspeptic, or chlorotic, the infant cannot fail to suffer. Other causes of consumption are, residence in cold, damp localities, with poor feeding, and inattention to cleanliness. To sum up, the principal causes are hereditary taint, and the bad health of parents when children are begotten. We might give many illustrations of the truth of this were there space. One may suffice. We met with a family years ago where all the children were tubercular, some dying of disease of the lungs, some of disease of the glands of the belly, and others of disease of the brain. The father, poor man ! wondered how all his children *melted away*, but to the doctor the cause was clear

enough, and to the male parent it ought also to have been plain enough. He was an almost unique mass and specimen of tubercular disease himself. How blind are we often to our own defects! If this parent had looked into a mirror he would have seen that his nose was almost eaten away, that his eyeballs were hanging from their sockets, that his neck was honey-combed in diverse places; moreover, he could not have failed to be reminded by his stiff, drawn-up, and running leg, of the frailty of his frame.

**Symptoms and Signs of Consumption.** —

Cough, nocturnal, or night perspirations, spitting of yellowish matter, and sometimes of blood. There is loss of appetite, flushings, diarrhoea, shortness of breathing, and stitches of the side. Hectic fever, too, sets in (although this is not so frequent in children as in adults), a condition marked by alternate chills and heats; by flushings, and burning feeling in the palms of the hands and soles of the feet. The flush in the cheek is called the hectic flush, and is a rosy spot in its centre. Diarrhoea is apt to set in, though it may give a little temporary relief to the cough.

**Treatment.** — The main treatment in this dire disease consists in bracing up the child by tonic and hygienic measures. In the case of an infant at the breast, that is, at its mother's breast, we should see carefully whether the milk is up to the proper standard. Notice whether the mother has or has not a tendency to consumption; in short, whether she is or is not tubercular. If so, there must be an end to her suckling

of the child. It is alike better for her and the child to stop it. Then comes in the *healthy wet nurse*, under whom a feeble infant frequently rallies most wonderfully. As regards the treatment by medicines little need be said. Cod-liver oil is good. Children should have a little three times a-day. If it prove too heavy for them, there is another preparation which is of great value, and which sits more lightly on the stomach, and is of great benefit in this disease, viz., nitricine. A teaspoonful of this should be given every four hours to children above one year old. There is little use in giving cough mixtures. The chest should be rubbed with warm oil twice a-day. The diet should consist chiefly of cream and mutton tea, with a little fine Wiltshire bacon, nicely cooked before the fire. The child may refuse this at first, as is often done in the case of cod-liver oil, but ultimately will come to relish it, and be benefited by it. From being lean and cadaverous, it will often become plump and strong. When the cough is extremely frequent and harassing, a single drop, or two drops, of laudanum may be given in a teaspoonful of glycerine and fine olive oil in equal proportions. If the stitches in the side are very frequent and painful, we must resort to warm poultices, in which a little laudanum may be placed. A plaster combined of opium and belladonna helps to soothe, and is a support to the muscles of the chest.

**Heart Disease.**—It was wont to be thought that heart disease was extremely rare among the young, but *unfortunately we know that this is an erroneous notion.*

Though less frequent than in adult life, or in advanced years, it is yet far from uncommon in children. The principal diseases are endocarditis, or inflammation of the membrane lining the heart, including its valves; and pericarditis, or inflammation of the membrane that invests or covers the heart.

*Causes.*—In children, as well as in adults, rheumatism is a fruitful cause. It is believed to produce more heart, or cardiac, disease in them than any other ailment. Scarlatina sometimes leaves heart disease behind, or rather produces it in its course, and occasionally it is one of the evils, sequelæ or results of a grave attack of measles. Excitement, emotions of various kinds, fears, excessive anger, etc., have occasioned it also. Again, children have been born with diseased hearts or malformed hearts; hence the ailment is sometimes congenital. Heart disease, further, in children, as in adults, may arise from inflammation of neighbouring parts, such as the pleura, or membrane investing the lungs, extending to the heart, which inflammation may be induced by exposure to cold. In some cases of heart disease the origin is quite obscure.

*Symptoms.*—Palpitation, difficulty or shortness of breathing, blueness of the lips, weak circulation. The extremities are often cold, and the face may become livid or purple. There is also a characteristic pinched and anxious expression of countenance. Spitting of blood, or hæmoptysis, is another symptom, although this is rarer in the young than in adults. Usually a cough precedes this.

**Treatment.**—Preventive treatment is of the highest concern here. When a young person is seized with rheumatism, the disease ought to be early and skilfully treated. The heart should be examined carefully by a doctor daily, or even twice a-day, in a sharp attack of rheumatism, and the very first inroad of it checked by the most energetic means. Mustard, or turpentine, or a blister may be required, according to the severity and extent of the attack. In scarlatina, measles, etc., the examination of the heart is apt to be neglected; but this ought not so to be. Another important part of the treatment of heart disease is to keep the little patient as quiet as possible, to see that all excitement or causes of undue emotion are avoided; to forbid nurses or others from reciting frightful stories, etc.

**Liver Disease.**—This is not at all an unusual complaint in children, but it is rare to find any serious or fatal disease of the liver in young persons. The most common affection consists of an enlargement of the liver, and this is much more common in those children who are artificially fed than in others. It is often associated with disease of the heart. Scrofulous, or strumous, or tubercular children are most liable to the affection. It has happened occasionally, though very rarely, that cancer has invaded the liver of a child. Another disease, hydatids, sometimes attacks the liver of the young. In this case the organ is greatly enlarged by fluid. On the whole, liver disease in the young, though happening now and again, is not of serious import.



*Symptoms.*—These are, yellow countenance or jaundice, and disorder of stomach and bowels, the stools being slate-coloured.

*Treatment.*—Careful dieting, avoidance of sweet-meats, and a dose of rhubarb every day or two. Turpentine and oil should be rubbed daily over or across the liver, and also over the stomach and spleen. The best diet is mutton tea with barley; vegetables, excepting potatoes; and the daintiest bits of meat, well cooked. The medicines employed are dandelion, grey powder, and podophyllum; calomel, too, is useful, but must only be given under the directions of the doctor.

*Prospects.*—In children these are commonly bright. The enlargement of the liver passes away by means of the treatment briefly described, and health is restored. Of course, in malignant disease, cancer, etc., we cannot possibly look for a cure, but these are rarely witnessed in the young.

*Jaundice.*—We mentioned jaundice as one of the signs of liver, or hepatic disease, but the complaint deserves more extended notice. The infant a few days after the birth has often a bright yellow hue of the skin, and when that is uncommonly deep, the nurse is apt to say that the little one has got jaundice. But this yellow (or icteroid) colour is rarely jaundice, being only certain changes of the blood in the skin of the child. It has been called local jaundice. We distinguish it from true jaundice by noticing that the child's bowels are natural in colour; its urine being also

normal, and not of a marigold hue. The white of the eyes is also not stained with yellow.

*Jaundice, proper, or general.*—This is a graver disorder than the local colouring referred to, but in this country, or where children are properly nursed and carefully dieted, it is far from common. In the Foundling Hospitals of Russia and France, and in the West Indies, it prevails to a considerable extent.

*Causes.*—Cold, impure air, bad feeding, and imperfect breathing. Inflammation of the liver is a cause, but this is rare. Lastly it is occasioned by obstruction of the bile ducts, or what is even more serious, the congenital absence of these. The signs and symptoms are the yellow or jaundiced hue, well-marked in the white of the eyes, the pale slate-coloured stools, and the bright marigold colour of the urine.

*Treatment.*—Doses of grey powder, with rhubarb. Gentle rubbing of warm oil over the liver, and warm fomentations. Where the bile ducts or gall-bladder are wanting, the case is hopeless. It is astonishing how long a child will hold out even in presence of this serious deficiency. They have been known to exist for several months, although they generally perish in a week or two.

**Kidney Disease.**—This is by no means prevalent in the young, at least as a primary disease. The usual form consists of albumen in the urine, and it has been called Albuminous Nephritis. The existence of this albumen does not seem to be owing to disease of the kidney, but rather to some altered condition of the

blood, and it occurs in the course of scarlatina, typhus fever, typhoid fever, diphtheria, etc. Scarlatina produces more than three-fourths of all the cases.

*Symptoms.*—Dry, hot skin, great thirst, vomiting at times, and dropsy. The treatment is the same as in scarlatinal dropsy. A good diuretic in dropsies is the cream of tartar, and about the safest drink is skim milk, with the addition of some lime water.

*Diabetes.*—This disease, so fatal in adults, is very rare in children, and happily so. In fact, it is so uncommon as to render any notice of it unnecessary.

*Gravel and Stone in the Bladder.*—These are not at all uncommon in the young. In a large hospital, out of 500 cases of stone, 40 were those of young persons under ten years. Both disorders are due to defective assimilation of food, usually hereditary, and they require to be treated by the medical man.

*On the Diseases of the Stomach, Bowels, or Intestines, and Liver; or of the Organs of Digestion and Assimilation.*—The digestive powers of an infant, owing to the incomplete development of the organs concerned, are more feeble and delicate than in adults. Children, it is true, require more food in proportion than grown-up persons, in order that the growth of the body may go on, but the digestive apparatus, so to speak, is more readily thrown out of working order, and with them it is often but a short, though painful, transition from the natural to the morbid state, from a state of health to one of disease. The food which a child partakes of is soon digested or

assimilated ; it requires to be fed often, compared with the adult ; and on this very account great care has to be exercised in feeding, so that anything like an over-burdening or over-working of its tender stomach, or alimentary canal, may be avoided. The selection of its food we have remarked upon, but it is not only of importance to give the proper kind, but also to see to it that the proper quantity only be given, and the proper time observed in giving it. Wrong food will prove hurtful, but so also will redundancy and ill-timing. We have seen many children injured, if not killed, by stuffing with improper food. It is difficult to state the exact quantity requisite for a child in twenty-four hours, but it has been calculated that about  $2\frac{1}{4}$  lbs. of milk is not over much for a child about a month old, during the day and night.

**Indigestion.**—This is a common ailment in the young, but may, and often does exist without leading to atrophy or wasting. The stomach is for a time unable to digest the food (*milk*) properly ; it lies a time on the stomach and then is vomited in a curdled state—great masses, like white of egg boiled hard, coming up, with eructations of a sour odour. The causes are, bad milk, mixed milk, the milk of stall-fed cows, over-feeding, and too frequent feeding. The nurse's milk, when the child is wet-nursed, may be too old for the child, or she may be in poor health, or, lastly, she may not feed well or be fed well enough. Moreover she may feed injudiciously, that is, she may possess a taste or craving for vegetables, such as cabbages, or kail, etc.,

and indulge in broths overladen with these, when she goes out to the house of a humble friend, it may be. Such vegetables are fruitful of indigestion, of gripes, and even of serious colic.

*Symptoms and Treatment.*—When an infant suffers from this, owing to the imprudence of the nurse in over-feeding the infant, and not from an inherent or inborn weakness of the stomach, a dose of rhubarb, followed up by a little castor oil is of much benefit; if there be much pain in the stomach, from half to one drop of laudanum may be given with the oil. Hot flannels should also be applied over the stomach. If the vomiting of curdled milk be very persistent, a little pepsin wine and bismuth may be given three times a-day before food. Lime water may be added to the milk in the bottle also from time to time.

**Spasm of the Stomach.**—This is an affection of the stomach which occasionally happens in children. It consists of a contraction of the muscular fibres of the stomach, attended with severe pains. The pain in fact is so great as almost to double up the child. It is one of the results of indigestion, with accompanying flatulence or wind.

*Treatment.*—Give castor oil and a little laudanum; apply hot fomentations over the stomach.

**Gastritis, or Inflammation of the Stomach.**—This is a very rare disease in the young. It may arise during the progress of some of the eruptive fevers, but it is usually occasioned by the swallowing of some poisonous substance. The symptoms are, pain over

the stomach, vomiting, diarrhoea, thirst, and loss of appetite.

*Treatment.*—This depends a good deal on the cause. If arising from poison, we must endeavour to get this removed. Afterwards assuage or mitigate the pain by an opiate and by warm fomentations over the stomach. The food must be extremely light, such as barley water, milk and water; or if the child is at the breast, it should get little at a time, and not be too frequently applied to it.

**Diarrhoea.**—This is a very prevalent disorder, especially after the first six months, and it carries off an immense number of children from time to time. Various writers have described quite a number of varieties of this disease, but it may be well described and treated of in the two forms of Simple Diarrhoea and Inflammatory Diarrhoea.

**Simple Diarrhoea.**—The causes of diarrhoea are very numerous, such as exposure of a child to cold, teething, unhealthy state of the milk (whether of the mother's, the wet nurse's, or cow's), the giving of artificial food too soon, or giving the wrong kind of food. The sanitary condition of the residence, too, plays an important part in the production of the malady. A damp, dirty, dingy, and badly-ventilated dwelling tells seriously. Some children are continually confined to such places; they never, so to speak, get a mouthful of fresh air; and it is, therefore, not to be wondered at that digestion is imperfect, and that diarrhoea sets in. 'About the most important factor or cause is den-

tition or teething. About one-half of all the cases of diarrhoea occur during this process or period—say, from the age of six months to that of two years. It has long been observed that during the cutting of a single tooth even, sharp diarrhoea has set in; and when the tooth was fairly through, the looseness ceased. While teething thus, by influencing and quickening, through the nervous system, the action (peristaltic action) of the bowels, induces diarrhoea, we have to keep in mind that at this period of an infant's life the digestive or alimentary canal (that is, the stomach and bowels, with numerous glands) is growing, evolving, and developing, in order to fit the child for stronger meat; and during this growth the bowels may, and often do, act with a profuseness which is not natural, but which may not be detrimental. In addition to teething as a cause, we must lay great stress on improper feeding. As we have elsewhere said, milk is the proper diet until the time of the cutting of the teeth; yet how many mothers and nurses ignore this, and give, as it is called, toothfuls, or “wee drops” of this and the other thing, totally beyond the digestive powers of the child! Before the child is six months fed, they will coolly tell you that they are giving him a little taste of everything going, and add that he enjoys it. No doubt he does, like too many more older than him; for it is a common failing to have a relish for articles possessed of a flavour. It does not follow, however, that what we relish does us good; rich soup, or bit of herring, or ham, or beef, or potato is not the

proper aliment for an infant. Again, the mode of living of the mother or wet nurse influences the child's health and bowels. They may have a taste for tart things, and indulge it freely, or they may gorge themselves with various kinds of vegetables, or they may partake of too many sweet things, such as pastries, buns, sweet cake, etc. Beer may also be too abundantly partaken of, the result of all being the irritation of the infant's bowels.

**Symptoms of Simple Diarrhœa.**—When diarrhœa is about to begin there is usually a restlessness and sleeplessness, startings and moanings, and a general uneasiness. Then a too free and frequent motion of the bowels sets in. Instead of a child having from four to six motions (or alvine discharges), he may have double the number in the twenty-four hours. There is often sickness and vomiting, not only of the contents of the stomach, but of yellow or green-coloured mucus and bile. At first the stools may be of natural colour and consistence, that is, semi-solid and of a moderately yellow hue; but soon they turn into a too bright yellow, and are mixed with green frothy stuff; and here and there white or greyish specks or curds are intermixed, showing that the more nutritious parts of the milk are passing through undigested. Often the stools are quite watery, containing little solid material. There is not much feverishness in simple diarrhœa, and though the belly may be a little tumid or distended, there is not much pain when it is touched or pressed on. When the looseness of the bowels con-



tinues for several days, it tells greatly on the appearance of the child. He becomes pale, soft, flabby, and thin; his eyes become sunken, and there is a pale-blue circle around the orbits. The stools are not only frequent, but very offensive in odour; and altogether the child in the course of a few days is reduced to a weak, wan, miserable creature, within an ace of succumbing altogether. Infants may die in a few days from this complaint, but usually, when uncomplicated by disease of the brain (as sometimes happens), they recover well.

**Treatment.**—In treating the diarrhoea of infants, we must take care not to put any sudden arrest upon it—to stem the flux, so to speak—by the use of powerful astringent or binding medicines. The flow or looseness may be allowed to go on for a few days, viewing it in the light of a safety-valve; and if we suspect, or are aware, that it has been induced by improper feeding, we encourage the motions by a laxative dose, castor oil being about the best. When all irritating material has passed through, and the peristaltic action yet continues excessive, we then step in with soothing and binding or astringent medicines. These are, prepared chalk, Dover's powder, paregoric elixir, etc. When the stools are very green, a little grey powder, with the powder of Turkey rhubarb, is better than castor oil. A teaspoonful of the ordinary chalk mixture, with a drop or two of laudanum, according to the age of the child, is of much service. The diet both of mother and child should be scrupulously attended to. See that Nature's food, milk, is up to

the mark, whether the parent's, or nurse's, or cow's. If not, replace it by better. In children over six months we may give a little boiled milk and bread, or boiled milk and arrowroot, or weak mutton-tea with barley, or sago, or tapioca. A little barley-meal porridge is also very beneficial. Again, let us repeat, see that the fountain-head be pure; let the mother or nurse live a natural life; let them eat abundantly, but only of wholesome food. As regards dentition, we may occasionally have to help through a struggling tooth; but scarifying is not now much resorted to. Neave's food comes in very suitably after the diarrhœa has been somewhat checked. Raw meat, well grated down, is also of immense benefit. Children will partake of it quite readily when put up in the form of a sandwich, the two opposing slices of wheaten bread being cut nearly as thin as a wafer. If a child can partake of a little raw meat there is much hope for him. It not only seems to have the power of arresting the looseness, but nourishes the child at the same time.

**Inflammatory Diarrhœa, or Dysentery, or Enterocolitis.**—This more severe form of diarrhœa is of very frequent occurrence, and not seldom happens as a result of the simple variety. The causes are much the same as in this latter—viz., improper alimentation, bad sanitary conditions, difficult dentition, etc. The weather has a good deal to do with it too, for it is found to be most prevalent during the hottest months of the year. The disease affects greatly the larger bowel, or colon.

*Symptoms and Signs.*—The child begins to get restless, and puts on an expression of pain. It goes less readily to the breast, and what milk it sucks is often rejected or vomited, the contents thrown up having a sour odour. The stools are more frequent—sometimes one every hour, or even half-hour in bad cases. These are of a very mixed character—greenish and greyish, slimy, and streaked with blood. There is a good deal of tormina, or difficulty and straining, and a painful desire after the evacuation has taken place (*tenesmus*). There may be a good deal of blood in some cases, but usually what passes has the appearance of minced meat. There is always a high degree of feverishness, quickened pulse, thirst, dry and coated or furred tongue, and hot, dry skin. The thirst is usually excessive, the infant crying for cold water, and, after freely partaking, asking for more, which, however, is often rejected. The loss of flesh and strength is very rapid in this grave form of bowel complaint, a plump, strong, healthy child being reduced in a day or two to a pale, shrunken-featured, feeble, emaciated thing. Sometimes children are carried off suddenly by this disease; but this rapid termination is not so common in Britain as in India and South America, where the disease is termed *Cholera Infantum*, or *Summer Complaint*. In this country we have a large percentage of recoveries, and usually when a little patient succumbs, it is by a gradual process of wearing out or exhaustion, which may extend from six to fifteen days. Another concomitant of dysentery to be noted is a falling

down of the bowel, or what is called prolapsus ani. This seldom happens before a child is a year old. Then we have often distressing irritation of the seat, the buttocks, and the thighs (erythema), arising from the acrid character of the discharges from the bowel, or from the bladder, because the urine is also usually very hot.

**Treatment.**—The treatment is much the same as in simple diarrhœa. It is good to begin with some castor oil, and a few drops of laudanum. Then a little turpentine and olive oil (half-and-half) should be rubbed over the abdomen, to be followed by the frequent application of hot bran poultices. If the castor oil is rejected, give a grey powder, along with a little Dover's powder; indeed, whether the oil comes up or not, this should at least be given the following day. Then, to check the too numerous stools, give a powder consisting of three grains of extract of log-wood and half a grain of Dover's powder twice a day, watching that the child does not become too drowsy. For the thirst try and get the patient to take lime-water and milk, which, if retained, will help to bind a little. Attention to diet is of vast importance. If the infant has been on artificial food it ought to be wet-nursed, or at all events the best milk ought to be procured. A very suitable diet is made by mixing a tablespoonful of milk, a teaspoonful of cream, and four tablespoonfuls of water, into which some isinglass has been dissolved by boiling. More milk and cream may be given according to the age of the child. Arrowroot may be mixed with benefit along with the milk; for a change, a teaspoonful or so to two tablespoonfuls of milk, half

a tablespoonful of cream, and half a pint of water. Thick gruel or bread and milk are too heavy for a child under nine months. If the child continues to vomit the milk curdled, it may be entirely stopped for a day, and barley water and arrowroot given. Sago, rice-flour, tapioca, etc., answer well too; and mutton-tea with barley is of much service. The strength must be upheld, and with that form of nutriment that will lie most lightly and be digested most easily. For the straining (the tenesmus), an enema, or injection, consisting of thin starch and a drop or two of laudanum, will help greatly to soothe and check it; but it must be gently administered. Other medicines employed are, chalk, catechu, sugar of lead, kino, etc. At one time calomel was much in vogue, a sharp dose or two being given at an early stage of the disease; but while that medicine has doubtless done good in some severe cases, we prefer the milder preparation, grey powder. As regards opium, or rather laudanum, which is prepared from opium, we must be careful with it in children. One drop or two is enough for a child of six months, and half a drop for one of three months. It eases pain, and checks the diarrhoea wonderfully; so we may repeat the dose in six hours or so, provided the first one has not made the child too drowsy.

#### **Cholera Infantum, or Summer Complaint.**

—This is a disease much resembling the preceding, and its causes differ little also; there is just this, that the high temperature of warm climates predisposes greatly to it, and some families are more prone to a seizure

than others. The treatment is just that of the diarrhoea previously treated of. A good deal of stimulation, brandy and water, or sac-whey is necessary.

**On Vomiting in Infancy.**—Vomiting is exceedingly common in infancy, and may or may not bode mischief. It does not, as a rule, imply disease of the stomach, which in the young is a rare disorder, but arises frequently from an irritability of this organ, induced by overfeeding, or improperly selected food, or bad milk. Owing to the particular shape of a child's stomach, and the position of the gullet, or oesophagus, entering it, vomiting takes place much more readily than in the adult. Children brought up by the hand, that is on the bottle, frequently vomit the milk curdled, and danger may arise from the curd sticking in the throat and causing suffocation. We are not to be alarmed at this kind of vomiting, that is, if the child is quite cheerful afterwards, and is not faint, pale, or languid. It merely implies overfeeding or impure milk, as before said. But vomiting has often a serious meaning: it announces disease of the brain; it heralds inflammation of the lungs and pleurisy; it ushers in or precedes scarlet fever and typhus fever. The skilled medical man will be able to judge the meaning of it. He examines the matter vomited. If it be curdled milk that comes up, without any admixture of green or yellow bile, etc., then it is likely to be only the ordinary harmless rejection of a redundancy of milk. If yellow, or green, or dark-brown stuff be thrown up, and repeatedly; and if the child be pale, anxious, and

exhausted, something grave may be looked for, or dreaded at least.

*Treatment.*—It is best to begin with a dose of castor oil, giving a second one if the first comes up. It may be switched up with sugar and a few drops of brandy. Some fluid magnesia should be given, and a little fluid bismuth. If the vomiting be persistent and continuous, place linseed meal and mustard over the stomach. If it indicates other disease, then that must be treated as elsewhere laid down. An infant, we may add, will vomit daily for a week, without being much the worse, especially during the teething time. When purging is associated with vomiting, the former need not be checked for a day or two, unless the child be much exhausted. A little dissolved isinglass, with some brandy, is of service. In obstinate cases the medicine called oxalite of cerium really does some good.

**Atrophy, or Wasting.**—A not uncommon result of artificial feeding is a wasting or atrophy of the child; but this applies more to those cases where farinaceous foods, such as arrowroot, are given, and which do not furnish the elements necessary for the full maintenance of all the various parts of the body. In some cases, too, the child's alimentary canal is so weak to begin with (so affected with tubercle, in short), that not even the most carefully selected food will answer. Give the infant what you will, the food is only poison to it; it languishes, wastes, pines, and dies.

**Atrophy, or Wasting, as the result of Starvation; Baby-farming, &c.**—In connection with

infantile atrophy or wasting, we must allude to that brought on in numerous cases solely by starvation. The child may have been healthy, plump, cheerful, and happy; but unfortunately, poor thing! it happened to be illegitimate; and therefore it had to be sent out to some hireling for up-bringing. Sometimes an infant will fall into good honest hands; it may be a respectable woman without offspring, and yearning for such; and usually in such cases it will be fondly looked after, nursed, tended, and prized. Happy for the little one if this be its lot! On the other hand, there are numerous needy persons in all parts of the land who make a regular trade of receiving children, who advertise for them, and answer advertisements inserted in the newspapers; and who simply wish to prop up their shattered pecuniary condition, or to minister to their vicious habits thereby. Such persons are termed baby-farmers, and fitly so. A slump sum is paid down—it may be £30, or it may be £50, and they take the child over, promising or not, as the case may be, to nurse it well, and to bring it up honestly. Alas for the poor infant if it fall into the hands of an indigent and needy, and, possibly, a drunken woman! If the woman is in debt the child will be starved: if she is given to drink the same thing will happen. If her husband drinks, she may even, though inclined to act honestly and naturally to the poor cast-off infant, be obliged to punish it in order that her partner may have his base desires satisfied or gratified. We do not indiscriminately condemn the practice of sending out children to



be nursed and brought up by hirelings ; indeed, we have seen many little ones placed in the most comfortable circumstances and well cared for ; as well cared for, in fact, if not better, than if they had been the woman's own offspring. But those lying under the necessity of boarding children out, should see that they have respectable and good people to deal with ; that they are not impecuniary or dissipated. This is their bounden duty, and if they neglect it, they are nothing short of monsters. They degrade themselves below the brute creation, for the lower animals are not given to entrust their offspring to destroyers. In our own experience we have seen the good and the bad side, the dark and the bright. We have seen many instances of men most anxious for the welfare of their children, visiting them often, and watching with natural and scrupulous care their "rise and progress," so to speak. We have seen also many women then performing their duties with an admirable faithfulness. On the other hand we have observed the very reverse—a fellow haggling for from two to three shillings a-week, and a woman hard-up taking the infant on, and of course, if not deliberately destroying it, yet filling its stomach with cheap fare, so that she might make a copper or two out of it for her own necessities. The fare may be a little gruel, or second-class rusk, or third-class sago, tapioca, etc., in fact, anything to appease the craving of the child. Let it be emphatically impressed on all those concerned that two or three shillings a-week will not answer the combined purposes of proper feeding and the nurse's care

of the infant. Milk being the great food, more money is required to get enough of it and good. Then the woman must be paid for her trouble. The great thing then for any one who has to board a child out is to see, in the first place, that the party to whom it is entrusted is steady and respectable (a woman without family being preferred), and, secondly, that a proper sum be paid to the hireling, say not less than six or seven shillings per week. If the parent or parents are not able to pay as much, God help the infant! Its belly will suffer, unless there be honesty and affection. But there are women who, having no offspring of their own, and even some who have, that will nurse the cast-off infant with genuine natural affection, no matter the price paid; the infant becomes, in fact, as much endeared to them as if it had sprung from their own loins. Such gems of women are somewhat scarce, yet we have met with them often. We have known a woman almost break her heart when a bastard left her roof, although under her roof-tree there were many olive plants of her own. In Scotland, so far as we are aware, there are few baby-farming establishments, such as we hear of from time to time in England; there are many respectable families who keep one child at the most. There have been few scandalous revelations, we are glad to say, and long may this continue! No such establishments should be permitted to exist without being regularly inspected, the same as in the case of lunatic asylums and lodging houses. To conclude; the crime of infantile starvation lies often as much on the

heads of those sending out the innocents as those taking them in.

**Scrofula, or Struma, or King's Evil.**—This is an unhealthy condition of the body, usually hereditary or transmitted, but capable of being produced by foul air and bad feeding; in short, by all those sanitary conditions common to the destitute. It is not a contagious disease. The bad condition of body or of blood is marked by various well-known signs and symptoms. There is a want of robustness, a marked debility, a paleness and flabbiness about strumous children; their bones are often badly shaped, or deformed; and they suffer from inflamed eyes, running ears, scald heads, swellings of the glands, etc. The teeth early become decayed, and waste away. The scrofulous child is usually known by his big head, narrow chest, clubbed or "double-jointed" bones, thick pouting lips, fair skin, long eyelashes, light hair, etc. They are usually of bright intellect, clever, sharp, precocious. Their beaming countenance, their sharpness of wit, etc., have frequently inspired the highest hopes as to future distinction, but the skilled person knows that the strumous child has not one but many rocks ahead in his life's voyage, and that on one or other of these he may at any time be wrecked. This condition of body is the cause of more diseases than any other, some of them of a sad and painful character. We may notice some of these:—water in the brain; diseases of bones, such as caries and necrosis; consumption; white swelling; inflamed and running glands and sores; epilepsy;

ulcers on the eyeball, ending in blindness; leprosy; and various obstinate diseases of the skin. You will see young persons at times going about with scarcely any face at all, with bandaged legs, or with legs amputated, with ulcerations all over, with runnings at the neck and other parts, all owing to this wretched state of body. Many a time have we pitied the poor things, their condition being fitted to melt a heart of stone, and often have we thought of the vicious folly of their ancestors, more or less remote, who entailed such a miserable existence upon them. This leads us to say a little as to the causes—we mean as regards the hereditary cases. These are, a bad state of health of one or other of the parents, brought on by dissipation, by living a fast unnatural life, by contracting syphilitic disease, and in consequence having to resort to mercury, etc., in order to cure the same; then, incompatible marriages, such as an old, and consequently a feeble man, marrying a young person; or persons closely related by blood; or men in the prime of life, but of a weak condition of brain and nervous system, marrying. Again, persons of an average constitution as a rule may beget children when their system is temporarily shattered, and thus propagate scrofula. It behoves both sexes to take a serious view of this question, and so to regulate and moderate themselves, their feelings, inclinations and desires, their mode of life and living, so as to be as far as possible innocent of sending into the world offspring, whose existence, if not a kind of daily dying, is assuredly one of daily

suffering and pain ; children whose agony is such, that it would seem no sin to "pray a thousand prayers for their death."

**Treatment of Scrofula.**—When we have to deal with a scrofulous child, or a scrofulous family, we endeavour to alter the system, to improve the health by change of air, and by various tonic medicines. A dry and pure bracing air is best, and the child should be as much outside as possible. The brain, naturally acute, should not be burdened ; that is to say, education should not be pushed. Knowledge will be picked up gradually, and quick enough, without much poring over books. The best tonic medicines are nitricine, cod-liver oil, and the preparations of iron. The diet should be nourishing, such as mutton-tea, with barley, pea-meal with cream, and tender, well-cooked beefsteaks. Milk, especially goats' or asses', and the different kinds of farinaceous foods, are also suitable. Stimulants are rarely of use, being too heating. If there be no lung disease, no consumption, the air of the east coast will be suitable at almost all seasons, but if there be tubercle in the lungs, a more sheltered and a milder district, such as Torquay, will be requisite.

**Hooping Cough, or Pertussis,** sometimes called Chincough, or Kink-cough, is a very prevalent disease among the young, and indeed is essentially a disease of children ; although those who escape it when young, are liable to it in adult life. It is an epidemic, a very infectious and contagious malady, and consists of a spasmodic or convulsive cough, accompanied by a

suffocative feeling, and a peculiar hoop, or draw-back, and kink. It is not an inflammatory disease of the lungs to begin with, like bronchitis or pneumonia, but at certain seasons, and in children not robust, it often brings on one or other of these complaints, and when this is the case matters are rendered much more grave. It is a disorder that carries off many children, but some epidemics are comparatively mild; and again, in summer, it is usually less severe or fatal.

*How the disease begins.*—It begins with the symptoms of an ordinary cold, viz., a sharp, dry, ringing cough, and perhaps a little sneezing and watering of the eyes. Some have said that the cough is so peculiar that a skilled person can tell the disease from hearing it, but it is difficult to distinguish it from other spasmodic coughs (such as that connected with teething, or disease of the brain, or spasmodic croup, or inflammation of the smaller bronchial tubes), at least for a week or two. At the end of the second or third week we are rarely left in doubt, for then comes the peculiar hoop. The hoop has indeed in numerous cases been heard earlier, even so early as the third day; but the ordinary period of its occurrence is, as said, the end of the second or third week. By this time the cough is usually more frequent and severe. It comes in violent paroxysms—kinks of cough, as they are termed—in rapid succession, until the air is almost wholly expelled from the lungs; the child becomes blue in the face, struggles violently, and clutches the nearest object; and when the last kink is over, the air is drawn in rapidly, or inspired,

with the hoop so well known to those who have heard it. This sound is caused by the rapid and forced drawing in of the air through the narrow glottis or upper part of the wind-pipe. There is usually also vomiting. On regaining breath, the child is much relieved; the blueness and swelling of the face pass away, the anxious and frightened appearance that preceded the fit of coughing also ceases, but there is left a good deal of fatigue and exhaustion. In a pure case of whooping cough little spit comes up; only a little colourless, ropy fluid. It is astonishing when the paroxysm is over how soon a child will cheer up and be merry again. It resumes its playthings, which it had hastily thrown aside when the fit of coughing was coming on (and children do know, or have a presentiment of its approach). We have often been astonished at the pluck of some infants, even not more than six months old; how they will rise from their back when lying in their cot, and seizing the side of it, or the pillow, battle manfully with the horrible cough, and rage at it when over. It has been said that infants under three months rarely take whooping cough, and perhaps they are rather less liable; still many only a few weeks old are seized, and there have been a few well authenticated cases where children were born with it. The disease lasts from six weeks to three months; it may even extend to six months, or be prolonged thus far by relapses. There are instances where the disease has attacked persons twice, but this is a rare occurrence.

*Complications of Hooping Cough.*—Hooping cough simple—that is, a typical case without complication—goes on for eight weeks or so, and though extremely distressing to the child, leaves no evil consequences as regards the lungs or other organs. But in a great number of instances complications arise, such as pneumonia, or inflammation of the lungs, bronchitis, congestion of the brain, water in the brain, convulsions, diarrhoea, etc. A child may perish without any of those complications, just from the severity and great frequency of the fits of coughing, preventing sufficient air from entering the lungs, and leading to exhaustion. Other complications or results are, bleeding (hæmorrhage) from the nose and ears, blood-shotten and inflamed eyes. In delicate scrofulous children the brain is very prone to become affected, and often the first signs of water begin after hooping cough.

**Treatment.**—The treatment of this severe disorder must be given in considerable detail. A great variety of medicines have been proposed from time to time, with the view of abbreviating or cutting short the malady, but medical men are forced to admit that there is no drug known that can do this. Some drugs are prescribed which are too potent for children, such as prussic acid, belladonna, etc. In the words of that learned physician, Sir Thomas Watson, they are “gigantic remedies to employ upon such young subjects.” However, in a child above a year old, the careful administration of these may prove of benefit. The first thing to be done when a child is known to

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have hooping cough, is to keep him indoors, in a well-aired apartment, the temperature of which should be about 60°. The fire of the apartment should be replenished frequently during the day with green wood, especially pine. In removing him from one apartment to another, sudden cold draughts of air ought to be avoided. Twice a-day at least, morning and evening, he should be rubbed over the back and front of the chest with camphorated oil.

If the cough be moderate, no internal medicine is required beyond a little ipecacuanha wine, which we always prefer to antimonial wine in the case of the young. If the patient vomit with his cough, we do not require to give emetics, but if not, and if there be much phlegm lodging about his chest, a good dose of the ipecacuanha wine will have the desired effect. Vomiting, however, is in most cases a part of the trouble, and there is generally no need for continual dosing with emetics, which will be sure only to enfeeble the child, and may even conduce to death. We venture to say that many an infant has been killed by the over-physicking of it, and not by the disease itself. A mixture found very beneficial at times consists as follows:—Bromide of potassium, thirty grains; bromide of ammonium, sixteen grains; ipecacuanha wine, one and a-half fluid drachms; glycerine, half a fluid ounce; water to make up to two ounces; a teaspoonful every four hours for a child one year old. When the cough is terribly frequent, severe, and exhausting, a single drop of laudanum, or half a

drop of prussic (or hydrocyanic) acid may be added, but these latter medicines must, as we have said before, be used with much caution. Another mixture that does some good consists of the following:—Cochineal, twenty grains; alum, twenty grains; ipecacuanha wine, two fluid drachms; glycerine, half an ounce; water, up to four ounces; mix; shake well, and give a teaspoonful three or four times a-day. But let us repeat that in a fair going case, the less medicine given the better. The disorder has to run its course, and with an average constitution and ordinary care, the little one, that is provided no complications arise, will sail safely into the haven of recovery and cure.

*Should we protect the chest with plasters or other appliances?*—After the first week or two, when we have rubbed well for a time, an opium and belladonna plaster may with advantage be applied to the front of the chest. It seems to comfort and soothe, and it supports the muscles of the chest during the fits of coughing. The back, however, still requires to be rubbed as usual. We have also of late been in the habit of recommending galvanic chest protectors, prepared by Smaill of Edinburgh, as of great utility.

**What about change of Air?**—In summer we never scruple about changing the air at the end of a fortnight. Change from town to country is one of the best medicines. Living in the neighbourhood of a pine wood or forest, and spending hours therein, is very beneficial. On removing a city patient away from his residence, from the *poisoned atmosphere* of his dwelling to a

wholesome part of the country, it is surprising to find how soon the cough is improved ; the child has it less frequently, and less violently, and sleeps undisturbed by it perhaps for several hours. How refreshing, renovating, and strengthening this repose is to a child exhausted to a great degree, and how comforting to those in charge, we need scarcely say. If the season be winter or spring we shall have to confine the patient longer to the house, perhaps six weeks ; it may be even eight or ten. The air of gasworks is much lauded by some ; it has been said that spending hours daily in such a place has proved highly beneficial. Now we cannot say that consists with our own experience, not having seen, at least, the disease shortened by it, nor the symptoms much, if any, abated. There are still many believers in it, however, and if there is no risk of catching cold in such places, and thus converting the simple malady into a complicated one, it may have a fair trial. Country patients have been benefited by a change into even a close and smoky town. The grand desideratum would appear to be a change of air from the place where the disease began to one where it is not raging, and as before said, if possible in the neighbourhood of a pine forest. When the cough is extremely bad, paroxysms coming on every short period, chloroform has been of no little service in moderating their violence and diminishing their frequency. But this again is a drug too potent to be handled much by non-professional persons ; and, in addition, it is found that the benefit *it may confer the first day or two ceases ; so that, on*

the whole, we can scarcely recommend the inhalation of this drug here. Another method of treating whooping cough is by brushing the upper part of the wind-pipe with a solution of caustic. Only an adept can perform this feat; moreover, its benefits have not proved equal to its drawbacks. Children object to it, and get into a state of terror when it is about to be applied, the excitement bringing on violent paroxysms of coughing. The application, too, does the same, and although in some instances the cough has hardly been so frequent, there has been no permanent benefit obtained. On the whole, then, it is a line of treatment which we should not be inclined to recommend. The treatment of the complications of whooping cough will be found under their respective heads. Bleeding should not be resorted to; for a child that has to pass through a disorder of ten to twelve weeks' duration requires to be nourished and sustained, instead of being depleted. The vomiting that is so common also, and which rejects a meal or the breast milk almost as soon as it is partaken of, tends to enfeeble, and furnishes ground for conservation, instead of diminution of strength.

**Measles, or Rubeola.**—This is an epidemic and contagious disease, and one which varies greatly in intensity and fatality in different seasons; that is to say, some epidemics of it (so to speak) are milder than others, producing fewer deaths, and entailing also on those who survive, fewer bad results in the way of permanent coughing and debility. It is a much less

fatal disease than scarlet fever, many epidemics passing away with little, if any, death-roll.

*How does the disorder begin?*—It begins with the symptoms of an ordinary cold, viz., alternate chilliness, shivering, and heat, feverishness, sneezing, running at the nose, redness and watering of the eyes, headache, backache, and a hard, dry, ringing cough. From three to four days after the onset of these symptoms, the rash or eruption appears. This is of a crimson colour, and of a crescentic or half-moon shape. It has been fitly likened to flea-bites. The rash usually appears first on the face, then down the neck, body, and legs. It is usually most prominent on the face, the eyelids sometimes getting swollen and closed for days. Across the chest the eruption is frequently most scanty, and mothers and nurses often anxiously call the attention of the medical man to this. The rash usually begins to disappear in from three to five days, fading first where it began first, viz., about the face and neck. But as there are some cases where it is long in appearing, so there are not a few where it is long in disappearing. For example, it may be seen on the skin for more than a week, though losing the bright crimson hue. In some cases a slight peeling off of the skin takes place, but this is not at all so extensive as what occurs in scarlet fever; indeed, it is often absent.

**Sudden Disappearance of the Rash.**—In some cases the eruption fades, or goes in, within from twenty-four to forty-eight hours, and alarms those in attendance. *Nurses* view this premature decline of the rash as ex-

y ominous, but it does not always follow that a  
 ived eruption bodes a bad or fatal result. There are  
 ases where only a scant and limited rash comes  
 and like an imperfectly developed flower, it more  
 y declines and dies, the patient recovering

### 1, Malignant, Black, or Purple Measles.

, on the other hand, there are instances where  
 sudden decline of the rash betokens serious dan-  
 The eruption not only comes slowly out, but it  
 out irregularly and imperfectly. It is of a dark  
 ple colour. When this is the case things look  
 grave indeed, and the highest and best skill is  
 ded without delay.

nchitis and inflammation of the lungs pretty often  
 . measles.

**tatment of Measles.**—The patient must be  
 in bed for a few days (the apartment being  
 ately warm), even in the mildest cases. Not much  
 ine is required—only a little sulphur or some  
 reru's spirit may be given to secure a good out-  
 f the eruption. When the *cough is very annoying*,  
 ed-meal and mustard poultice should be applied  
 chest; indeed, it is better always to do this to  
 at serious affection of the lung. *Remember that*  
*chief danger in measles is the lung affection.* In  
 en above five years of age, a little flannel dipped  
 pentine may be applied for a few minutes, the  
 eing anointed previously with a little cold cream  
 re oil. In rare cases a small blister, the size of a

crown piece, may be placed betwixt the top of the breast bone and the swelling called Adam's apple. This blister should not be kept on for more than four hours. The best medicine for the cough is the ipecacuanha wine, from five to fifteen drops, three times a-day, according to age. If the cough should be extremely distressing, a drop or two of laudanum should be added, bearing in mind that young children cannot stand much of this. In some very robust and full-blooded children a leech or two over the breast is useful, but this had better be done only under proper medical advice. Tartar-emetic often given in the form of antimonial wine, is not so suitable as the ipecacuanha wine.

**The Diarrhoea, or looseness of the bowels in Measles.**—This usually comes on when the rash begins to decline, and is often rather severe, but a drop or two of laudanum, or a grain or two of Dover's powder, will help to check it. If it is of slight extent, a little chalk mixture or lime water will suffice. Some are so reduced by it that stimulants require to be given, such as sac-whey, mutton-tea with barley, or brandy and water, or white of egg switched up with the latter.

**The Diet in Measles.**—For the first few days this should consist of milk and farinaceous food, with bread and butter. About the fourth or fifth day eggs or meat may be freely given, if the patient has been very ill and much weakened, provided, of course, the sufferer *can properly digest these.*

**When to Let the Patient Out of Doors.**—This will depend much on the weather. In spring or winter confinement to the house would require to be longer. In fine weather the child may be allowed to get out at the end of a fortnight, the chest being protected by a bosom-friend until the cough disappears.

**Scarlet Fever or Scarlatina.**—This is a disease of much more serious import than measles. Not that it happens so often or so extensively, but that usually it is much more fatal. We say usually, but doctors know that there are epidemics where a very small percentage succumb—that is, with fair and ordinary precaution and treatment. On the other hand, there are epidemics of a fearfully fatal character, where children, the pleasure, delight, and hope of their family, perish within from twenty-four to forty-eight hours. This sad issue would seem at times to be owing to the previous state of health of the victim, because other members of the same family, though seized, in many cases survive.

**How to Distinguish between Scarlet Fever and Measles.**—Before describing the disease it may be as well to point out one or two differences between these two diseases, because among the unskilled and inexperienced they have been frequently confounded. Firstly, then, the eruption of scarlatina is of a bright scarlet colour, covering the greater part of the body, and more particularly brighter on the back; whereas, in measles, we have numerous separate eruptions like flea-bites, *many parts* of the *skin* being unaffected.



Secondly, let it be remembered that the measles begins with sneezing, coughing, and watering of the eyes.

**The Signs and Symptoms of Scarlet Fever of the Milder Type; How the Disease begins, etc.**—In the simple and less severe kind of this disease the patient becomes feverish, having alternately a feeling of chilliness and of heat. Vomiting is extremely common, with sore throat, headache, drowsiness, slight wavering or delirium, and a quick pulse. There is often also a good deal of back-pain. The *eruption* appears in from twenty-four to forty-eight hours afterwards, and, as mentioned, is usually of a bright-scarlet hue. In many cases it is so bright as to be fitly likened to the colour of a boiled lobster. It begins first on the face and neck, then extends down the back and other parts of the body. When the rash is fully out the feverishness subsides generally. This rash often disappears in twenty-four hours, but usually it is visible for from four to five days or longer, fading in colour daily.

**The Throat and Mouth.**—The throat in this mild form is reddened and inflamed, but often without ulceration. The patient will sometimes have little difficulty in swallowing food. The tongue and mouth are also bright red, and sometimes the former presents the appearance of a strawberry, hence we speak of "strawberry tongue." But the affection of the throat, tongue, and mouth seldom lead to discomfort beyond a short period. Peeling-off of the skin, or desquamation, *usually occurs* from the sixth to the twelfth day. This

desquamation is in some cases very extensive, large folds of skin peeling off from day to day.

**Signs and Symptoms of the more Severe Form of Scarlet Fever, or Scarlatina Anginosa.**

—The disease is the same as in the mild or simple kind, but only the poison, so to speak, is more violent, and concentrates itself extremely in the throat and neighbouring parts. At the very beginning of the attack the fever is more intense, so also is the headache and delirium. The throat soon becomes inflamed, swollen, and very painful, and rapidly ulcerates. There is great difficulty in swallowing even a little fluid. Often fluid food is returned again through the nose. There is great swelling of the neck, with stiffness and pain, and it is with much difficulty that the lower jaw can be moved. The swelling of the neck is frequently not only very extensive, but extremely hard, and in such cases it impedes the breathing as well as the swallowing. Death in such instances may result both from starvation and the want of proper respiration or breathing.

**The Malignant Type of Scarlatina.**—There is another form described, which undoubtedly has distinct symptoms from the previous, and which is only known to be scarlatina by the fact of other members of the family having the well-known rash. This terrible form—for terrible it is in its power of suddenly destroying the patient—begins with pain in either the head, belly, or back, with vomiting. In an hour or two there is delirium, and you can with difficulty get a coherent

answer to a question from your dear child, whom, it may be, you have been romping and chatting with only a few hours before. In some cases we may have convulsions, but whether or not, collapse sets in and speedy death. The whole terrible affair is over in a day or a day and a-half. These are heart-breaking cases, for no time scarcely is given to the parent to make up his or her mind for the *seemingly* cruel wrench. The will of Providence be done, but it is a sore trial to gaze upon the corpse of a sweet child, with whom you had played only a day before.

**Treatment of Scarlet Fever.**—This of course depends on, and is ruled by the type or kind of it, whether simple or more severe and malignant. In the simple variety there is not much to be done. The patient is placed in a cool and well-ventilated room, the bed having no curtains. The temperature should be about 65° F. In cases where the patient seems overpowered with heat it may be reduced to 62° F. The clothing of the child ought to be light, avoiding the risk of overheating on the one hand, or overcooling on the other. If the little patient is naturally rather pale and feeble, and more particularly if it be winter, the temperature may be raised to 70° F.

**What about Medicines when the Disease is Suspected?**—The writer has considerable faith in a dose of sulphur twice a-day for two consecutive days, in order, so to speak, to drive out a free rash or eruption when this is not abundant enough. If *extensive* enough, it is scarcely necessary to give

anything inwardly, but just to keep up moderate warmth, say by a warm drink of gruel. If the child has been costive for a day or two previous to the onset of the disease, there is no harm in giving a moderate dose of castor oil or syrup of rhubarb. *But be sure to avoid giving powders containing any preparations of mercury.* Parents frequently go to the chemist and procure powders of this sort. Let them remember that in this ailment the safest laxative is castor oil. When the rash is fully out and developed, do not give any laxative dose. Avoid even giving more sulphur, which is laxative to a slight extent.

For the throat a little borax and honey in the mild cases is usually all that is required.

**Diet.**—In the simple cases give milk and farinaceous food, with a little weak beef-tea or mutton-tea. Some potash water in the milk, with a little sugar to sweeten it, makes a pleasant, safe, and beneficial drink. Fruit (such as grapes, strawberries, apples (roasted), peaches, good plums, cherries, etc.) is alike safe and useful. Children crave for them, and are refreshed by them. Let no stupid nurse or attendant therefore refuse them.

**Is it Safe to Give Water to Drink?**—If a child has a craving for water, by all means give it, but give it as pure as possible. It will cool and refresh it, and do it no harm, but often good. Many children will prefer it to milk, or lemonade, or potash water; indeed, the majority will take no aliment whatever for days—no drink but water. Try if possible to put a little good milk into the water, for

water alone will not sustain the body. You can do this at night when the child cannot notice the colour of the fluid, and it will be often thus cheated into a modicum of nutriment which it would have been next to impossible to have given during the day. We have said that water alone would not sustain the body, but we should have added that we meant it could not do so for any lengthened period. We have seen children suffering from this malady take nothing but cold water for more than a week, and yet survive.

*The treatment of the throat internally when very bad requires the care of the Physician.* So also does the external glandular swellings. In simple cases the throat may be brushed inside with a little borax and honey, to which is added some Condy's fluid.

*The question of butcher meat.*—It will be as well to say a few emphatic words under the head of diet regarding meat. We have indicated the kind of diet most safe to be given, and now we say, avoid butcher meat for a month at least. Don't even give a bit of fowl or game, because they are too stimulating—they are apt to lead to dropsy. We have seen this follow the eating of fowl.

**Scarlatinal Dropsy.**—This is one of the most serious results of Scarlet Fever, and it happens frequently in the mildest of cases. The patient may have been getting on well, and believed by the parents to be free from danger, when suddenly, usually about the third or fourth week, the ugly affair is noticed. The *eyelids* and face become swollen, and this extends to

other parts of the body. By-and-by come severe convulsions and death, after all seemed to the fond parent to be going fair.

*What is the cause of this?*—Usually cold, a chill caught from being exposed to draughts, or being permitted out of the house too soon. Another cause is the giving of butcher meat. In such a grave state, of course, the patient ought to have the benefit of a skilful medical man. Prevention being better than cure, let the parent, or nurse, or guardian remember the golden rules here, viz., to *keep the patient in the house for a month in Summer, and two months in Winter and Spring*; also to have the child well enveloped in flannel, and cold draughts of air to be avoided.

*Have we any means of preventing Scarlatina in a family when the disease is raging in the neighbourhood?* None; beyond escaping from the district. Belladonna was tried internally for a while, but found wanting. It often happens even when children are removed from the locality, that it has been too late, the poison having already invaded their system. Still, where practicable, removal is the wisest plan. Many children have been removed from a dwelling where the disease appeared, and happily escaped. We think removal a bounden duty, giving as it does a fair chance of escape.

**In the More Suddenly Fatal Cases**, viz., those where the patient, as previously described, perishes in from twenty-four to forty-eight hours, without even any visible eruption or rash, what can be done in the way of

treatment? In the absence of a medical man, let the parents or nurse give a little brandy and water, and every half hour some sal volatile in water. Put warm bottles to the extremities, and to any other parts that may feel cold. But by all means lose no time in procuring a medical man. We have met with not a few of these terrible cases, and have noticed that parents sometimes imagine that their children have been poisoned by eating unripe fruit, or poisonous fruit, such as the laburnum, etc., and not by the *virus* of scarlet fever. We do not wonder at this, because many are unaware of the disease existing without any rash whatever, aye, and killing with appalling suddenness. Mothers will say, "Oh! doctor, do you think that my babe was killed by that fever—there was no eruption, you know? Has he not been poisoned by some nasty stuff, some sweet meat, or fruit, etc.?" A post-mortem examination, too, is not seldom demanded, in order to set all doubt at rest. It is wise to carry this out, for it is the only way of appeasing the anguish and grief of a parent, who will not fail to fret for many a day if the true cause of death remains a mystery.

**When to permit the children who may have been sent away to return home.**—This depends partly on the time that the peeling off of the skin ceases. It may be safe in a month—not before; in some cases it will not be safe short of six weeks; and, of course, before returning it is understood that the residence has been thoroughly disinfected by the usual appliances, such as chloride of lime, or Condy's

fluid, or carbolic acid, or the burning of sulphur. Clothing, bed linen, and mattresses should all be thoroughly cleansed also; and the walls of the apartment renovated. *Remember that, like typhus fever, it is one that clings most tenaciously to a dwelling, and only* most ample and painstaking purification and disinfection will render the return of the family safe. We could cite many sad examples where, owing to the neglect of such paramount precautions, children have been seized on coming home after an absence of from eight to ten weeks.

*Sponging and anointing the Skin.*—There has been no little controversy regarding this, some recommending the rubbing-in of oil over the skin when it was itchy and peeling off, others recommending the application of cold water sponging. We believe the safest plan is to sponge with tepid water, to which is added some vinegar.

*Running from the Ears, or Otorrhœa,* the result of inflammation, is pretty frequent, and requires the skill of one expert in diseases of the ear. It frequently leads to permanent dulness of hearing and deafness, a sad deprivation for any one, whether young or old. Many have lost their hearing through scarlatina.

*Roseola.*—We mention this ailment here, because it is often mistaken for scarlet fever. The rash somewhat resembles the latter, but it is more of a rose-colour than a scarlet hue. There is seldom any sore throat, or quick pulse, or heat of skin, or thirst. It is altogether a mild affection, and of short duration. It is common after vaccination and during teething, and also when



the stomach is out of order and the digestion at fault. It is not a fatal disease, and the only treatment is a little castor oil, with cooling drinks, and plain, unstimulating diet for a day or two.

**Cancrum oris, or Gangrene, or Mortification of the Mouth.**—This is a very serious disease in children, though not a very common one, and usually occurs only in debilitated constitutions, whether arising from hereditary causes, or blood poisoning, such as in scarlatina, or hooping cough, or measles, typhoid fever, or the use of mercury, etc. It is mostly confined to the period betwixt two and eight years; the great majority of instances happen under five years. The disease begins in the mucous membrane of the cheek. There is first a little hardness felt on the inside of the cheek, and by-and-by this forms into an ulcer. There is not much pain at first, but this soon increases; however, the pain in this terrible disorder, for such it is, is never very great. The ulcer becomes deep and jagged, and is of a dirty brown, or dark-green colour. The gums are also dark-brown. Saliva flows profusely from the mouth, and the odour of the breath is offensive. On the outside of the cheek, a red swelling begins to appear, enlarges gradually, and in the centre of the swelling a dark spot appears. Soon a hole is literally eaten through the cheek, the whole presenting a black mass of putrefaction, most repulsive to look upon. Death soon sets in after this; indeed, the child dies frequently before the ulcer goes so far, apparently owing to the condition of its blood. Children will perish

even an hour or two after sitting up in bed, playing with their toys it may be, so slight in some cases is the pain. Death occurs from the seventh to the twelfth day. In some cases the disease is so virulent or malignant that part of the jawbone is eaten into and destroyed.

*Treatment.*—We shall scarcely say anything here under this head. It is by far too serious a malady to be meddled with by the layman or woman. When a fiery ulcer is seen within the cheek, send instantly for the doctor. He may not be able to do much, but he will do his best, and his work must be done punctually, thoroughly, faithfully. Children affected with it do not all perish; so we ought to work hard to the last. Plenty of nourishing liquid food, with good port wine, is given, and the medical man cauterises the ulcer frequently with various acids, or with the nitrate of silver.

**Typhoid (or Enteric, or Gastric); and Typhus Fever.**—The public are very apt to confound typhoid with typhus fever, but the two are quite distinct. Children are liable to both of them, though not so liable as they are to scarlatina or measles. We shall notice typhoid, or Enteric fever first. This disease comes on very gradually, and it is difficult to fix the time of its advent. The child is less cheerful, loses appetite, and becomes thirsty, and hot in the skin. He is irritable and fretful, and sleep is disturbed, broken, and unrefreshing. He feels alternately chilly and hot, and may complain of sore bones. Headache is common, and sometimes a profuse perspiration breaks out,

but without giving relief to the symptoms. If diarrhoea is not present at the beginning of the disorder, it is sure to set in ; for that is the most marked feature of the disease. The stools are of a pea-soup or ochrey colour, and possess an offensive odour, and they increase in frequency as the disease runs, some children being purged every hour or two. In severe cases blood comes away, too, but this is more common in adults. The tongue of the child is fiery-red at the tip and edges, and has white mucus in the centre ; it is also drier than usual. During the second week a few rose-coloured spots appear on the breast, but these in children are often wanting. There is a pained feeling over the lower part of the belly, and on placing the hand over it, it is found to be swollen with wind, etc., and to gurgle when pressed upon. This is over the site of the disease, which consists of inflammation and ulceration of certain glands (Peyer's). About the end of the third week in the young, the disease begins to decline, there is less feverishness and thirst, the tongue cleans, and the appetite returns. Moreover, the stools are less frequent, and of a more solid and natural colour. Children feel rather feeble for a week or two after this, but by-and-by they put on a bright and robust appearance, as if they had passed through a purifying ordeal.

**Causes and Treatment.**—The cause of typhoid is generally believed to be foul gases from water-closets, or foul drains, or the drinking of pump water, or other impure water. It may be acquired through drinking *milk* out of some dairy in a bad sanitary state. The

treatment (which should be in the hands of some medical man) consists in maintaining the strength of the child by careful dieting and nursing. The food should consist of arrow-root, milk, isinglass, calf's-foot jelly, and mutton or chicken tea. More of the farinaceous food, if the fever be very high, some good port wine, or brandy and water, may be necessary where the patient is much reduced, about the second or third week. Plenty of good water must be allowed for the thirst. Give it often, and only about a tablespoonful or two at a time, so as not to distend the bowels too much, and cause irritation and pain. Some good grapes may be allowed. The child's body may be sponged with lukewarm water and a little vinegar, and the head bathed with cold water. If there be much head affection it may require blistering, in which case it will be necessary to shave off the hair; in any case it should be cut short. For the diarrhoea and pain in the bowels, we give lime water to begin with, and a small dose of Dover's powder now and then to ease the pain. Warm fomentations over the bowels, with an occasional sprinkling of turpentine, may be used. When the looseness is excessive, we may have to give stronger medicines, such as chalk with opium, gallic acid, lead with opium, etc. These must not be administered by amateurs. Sometimes an enema, with thin arrow-root and a drop or two of laudanum, eases the pain of the belly, and checks to a certain extent the diarrhoea.

**Typhus Fever.**—This fever usually begins with a shivering, as if cold water were poured down the back,

with headache and pain in the back and limbs. Soon the patient becomes feeble and listless, the poison of the fever having affected the brain and nervous system. The expression of the face is soon altered in a marked degree. He is pale, languid, abstracted, and indifferent to what is going on around him. In this fever there is rarely diarrhoea, as in the case of gastric ; on the contrary, constipation is more common. The tongue usually gets dry and white, afterwards brown, and sordes—a dark brownish crust—collects on the lips. Headache is often severe. An eruption, called the “mulberry rash,” comes out. This eruption is not unlike that of measles, only it is bluish in colour. Delirium is soon superadded to the abstractedness and indifference so well marked in the disease, and stupor and coma are apt to set in and cause death. The disease rarely lasts more than a fortnight, and when improvement is coming, we have less fever, less headache, and the patient once more begins to take an interest in what is going on around him. Typhus is a disease confined almost entirely to the very poorest classes, who are ill-fed, and obliged to live in densely populated localities, in dirty, over-crowded, and unventilated apartments. It is a disease (unlike scarlatina, we may remark) capable of being banished, by attention to hygienic measures, by seeing to the cleanliness of dwellings, that there be also ample breathing space, and that the young patient be properly fed and nourished. The clearing away of old and stinking buildings, as in the Cowgate and other *parts of Edinburgh*, has greatly reduced the percentage

of typhus. Again, let us say emphatically, that, though powerless to prevent scarlatina, measles, hooping cough, typhoid fever, etc., we can, by hygienic means and measures, prevent typhus. It is a disease capable of entire banishment, like the plague. The treatment of typhus fever demands the highest skill. We shall not enter into any details as regards this, because it is of great importance to have this attended to by an experienced medical man. Careful nursing and dieting are the main requisites. At the end of fourteen days the child gets better and almost well. As regards diet, milk and potash water is about the best. When the child arrives at or about the fourteenth day of the disease, we may begin to give some stimulating food, such as beef, or chicken, or mutton tea. Fruit is always beneficial.

**Remittent Fever or Bilious Fever, so-called.**

—This fever is often confounded with typhoid or gastric, many cases of the latter being termed remittent. It is a fever, however, more approaching to ague. It begins with langour, chilliness, want of appetite, and pains in the stomach, the back, and limbs. The chilliness persists for days, and then a hot stage comes on, not unlike that of intermittent fever. There is always severe headache, the tongue is dry and dirty, and there is a bad taste in the mouth. The headache is very persistent, and bleeding from the nose, or epistaxis, occurs. When this happens the headache is relieved to some extent. The distinction betwixt this fever and intermittent is, that there is never that complete

exemption from feverishness, etc., during the intermissions which obtains in intermittent fever. In reality, infantile remittent fever is usually, at least in this country, just typhoid, with some other symptoms superadded, such as the alternate chilliness and heat.

*Treatment.*—Regulation of the bowels, and small doses of quinine; the diet being milk, with potash water, or, if the child be loose, lime water. Farinaceous food, and Neave's food in particular, form suitable diets.

**Intermittent Fever or Ague.**—This is a fever which, owing to drainage, has nearly been banished from Britain, but in many parts of the world it still prevails extensively, owing to damp, or malarious conditions, such as existed in the fens of Lincolnshire, where in former, and not remote years, the disease was seldom absent. It is an extremely rare disease in childhood. A great writer, Dr West, of London, says he has rarely met with it, and any cases occurring were contracted out of London. The disease consists of three stages: a cold, a hot, and a sweating one. There are three varieties of ague; the quotidian, tertian, and quartan. In the first we have the peculiar phenomena daily; in the second, every other day; in the third, every third day. But, instead of entering into a lengthened description of the disorder, which, as before observed, is rare in the case of children in this country, we shall content ourselves with a notice of the differences obtaining in children as contrasted with the *adult*. In children, it has been found that the cold or

shivering stage is often absent, and is replaced by nervous depression of a profound character, and not unfrequently ending in convulsions. Then the hot stage is much more severe and protracted, and the sweating is frequently absent. When children above six or seven years are affected, there is a greater approach to the symptoms characterising the attack in the adult. There is one thing we must not omit to notice, and which, we think, has not been pointed out before, viz., that parents, especially mothers, may entail it on their offspring. We knew a lady who contracted ague in Holland, and whose children born in this country were affected with it. They were never near any malaria, thus proving it to have been hereditary. The treatment is carefully regulated doses of quinine.

**Diphtheria.**—*Diphtheritis*, or, as it is sometimes called, "Boulogne sore throat," putrid sore throat, etc. This is usually a very severe affection of the throat, attended with a good deal of fever. It is a popular idea that it is a rather new disease, but this mistaken notion has arisen from the fact that the malady only invaded this country comparatively recently, viz., about twenty-three years ago. Certainly, since its baneful appearance, it has proved a heavy scourge, carrying off with dreadful suddenness many dear children, and frequently not sparing those of maturer years. The disease has undoubtedly become more common and fatal in this country during recent years, and often appears as an epidemic, embracing many children of our towns and villages. Every now and then you will read of it



appearing in certain localities, and sweeping off the youth with all the virulence of that other dreaded disease—Scarlatina.

*It is both an infectious and contagious disease*, and medical men as well as nurses have been affected by coming in contact more particularly with the diseased products, while operating on the throat or windpipe. It is more common in boys than girls, and the age of greatest liability is that betwixt two and eight years.

**How does the disease begin; what are the earliest symptoms?**—Usually the patient is out of sorts, has a chill, and then becomes feverish, with, it may be, langour, headache, and drowsiness. By-and-by the throat is complained of, and the swallowing becomes difficult. At other times, but this is rare, there will be a good deal of fever and depression, without much complaint of the throat. When the throat is complained of, a medical man should always be got as soon as possible, so that a thorough examination be made. It is a most insidious and malignant disorder, and the sooner prompt and proper means are employed, the better.

**The Appearance of the Throat.**—The throat is swollen and red for the first day, or, in some cases, for two days; then, what is called the false membrane appears, which begins on the tonsils, and is of a whitish or ash-grey colour. This extends in many cases to the palate, and down the windpipe, as well as up the sides of the cheeks and nostrils. The glands about the neck and jaw often swell greatly, and there is running at the

nose, and salivation or watering of the mouth. In the worst cases the membrane becomes of a darkish colour, and there is an offensive or fetid breath. There is usually a *hacking* kind of cough and a nasal speech, that is, the child speaks, as it were, through the nose.

**How long does the disease last?**—The usual time is from seven to nine days, but this period may be prolonged a few days more. If a child stands out for this length of time it is a little hopeful, for in many cases they perish within the week, owing to the affection of the windpipe, together with the difficulty of swallowing food and of breathing through the nose.

*The most favourable cases are those where the disease does not spread to the windpipe or up the nose.*

**Treatment.**—Trust to an experienced medical man, but if you cannot readily procure one, adopt the following measures:—Place the patient in an apartment with as pure air as can be had, away from any noxious smells or odours. Poultice the outside of the throat early with linseed meal and mustard, taking care not to break the skin. If the child is old enough to use a gargle, let him employ one, composed as follows, *every hour*:—Six grains of permanganate of potash, one teaspoonful of chlorine water, and a pint of pure water. When the child is too young to use a gargle, the throat should be brushed *every hour* with a little of the following:—Borax in powder, two drams; permanganate of potash, 12 grains; honey, one ounce; warm water, one ounce; to be mixed.

**Diet and Medicines.**—For the first day or two

give milk or arrow-root, but when the feverishness subsides, and if there be great weakness, give beef-tea, mutton-tea, or chicken-broth, with occasionally a little sac-whey, or wine negus, or weak brandy and water. As regards medicine there is no specific apparently of service. The French believe in a little mercury; we are against it. A medicine, however, which we have some faith in, is as follows:—for a child of two to four years of age, as much of peruvian bark and chlorate of potash (mixed in equal proportions) as will lie on a sixpence should be given three times a-day in water. From four to eight years let them have twice as much.

**Surgical or Operative treatment.**—Sometimes where the poor patient is likely to be suffocated from the disease having extended to the windpipe, etc., the latter has to be opened. It is a grave operation, and only a small percentage are saved by it. The cases for operation should be selected by men of the utmost experience, and we may add that the operation itself should be done by an expert. It is a sorrowful affair when the operation is unsuccessful, for one does feel acutely losing a dear one after the suffering endured in an honest attempt to save life.

**What about Caustics, Leeching, or Blistering?**—There is a growing belief that one and all of these are almost useless in this complaint. The disease begins in the blood, and although the throat becomes severely affected, that is only a local manifestation of *the terrible disease*. If a little caustic is to be used it

ould be applied early, and the best plan is to brush solution of it (ten grains to an ounce of distilled water) over the part where the membrane is seen every 12 hours. Leeching or blistering is uncalled for.

**Croup.**—Not unlike diphtheria in some respects is is often terrible disease, croup. We say often, because there is what is called a false croup, from which children usually recover, and which even when pretty prevalent, as we have observed, is not at all serious. Croup seldom attacks children before they are a year old, but at any period after that, and up to the age of seven, or beyond, they are liable. Delicate, scrofulous children are most liable to it, and despite every attention, often succumb. The disease is most prevalent in low-lying, damp districts, exposed to east or north-east winds. There are many localities in this country where the malady is never met with. It is a disease requiring the most prompt attention.

**Symptoms.**—The child becomes feverish, the skin soon burning hot, and there is considerable thirst. Hoarseness soon sets in, and there is a short and rough cough, called croupal. The voice in a day or two is reduced to a mere whisper. By-and-by the cough becomes very short and, as it were, smothered. In breathing, there comes a hissing and crowing sound, which is very characteristic, and may be heard over a large apartment. There is great difficulty of breathing, and the little one pants for breath. Now and then this great difficulty of breathing is aggravated fearfully; the child struggles in a frightful and painful manner,

as if a rope were around its neck, and loving friends even have at times to pray for a speedy and peaceful end. They would like the little one to recover, but they cannot bear the deplorable anguish of slow suffocation.

**Treatment.**—Whenever the croupal sound is heard let the little one have as much antimonial and ipecacuanha wine, mixed in equal proportions, as will make it vomit freely. Apply a linseed meal and mustard poultice to the throat, and after the skin is well reddened, apply continuously a sponge wrung out of warm water. If the child is like to choke, place it into a warm bath up to the very neck, surrounding the body with a blanket. Supposing the breathing becomes easier, still carry on for a few days the ipecacuanha wine. In desperate cases, the windpipe has to be opened, but only a small percentage survive. Let the highest skill be obtained in such instances.

**Chicken-pox, or Crystal-pox, or Varicella.**—

This is an eruptive disease, chiefly confined to children. It is not at all a serious trouble, it being rare that any child dies from it. It is a contagious disease.

**Symptoms, etc.**—There is usually about a day's uneasiness, with a little chill, and then some heat of skin, before the eruption appears. This consists of some deep-red pimples on the back, face, breast, and sometimes the extremities. Soon there appears a vesicle, or clear watery-looking spot on the top, hence the common name crystal-pox. In some epidemics only a dozen or two pimples will appear, in others

nearly the whole body will be covered. Children are only liable to it once. As a rule the rash, or as we should say, the vesicles, begin to shrink and dry about the fourth or fifth day, and nearly all disappear about the eighth or tenth day. Some little red spots may remain rather longer. Some persons have held that this disease is just a mild form of small-pox, but it is nothing of the kind. There are rarely any pits left on the skin, and the disease attacks those who have been vaccinated; besides, children who have had chicken-pox have been known afterwards to have been seized with small-pox. It cannot be communicated by the process of inoculation.

**Treatment.**—As in all eruptive disorders, a little sulphur or Minderer's spirit is given to drive out the rash, and the patient should be kept warm for a few days. It is safest to confine the child to the house for a week in summer, and ten days in cold weather. The school may be returned to at the end of a fortnight. The diet should be light for the first few days, such as milk, sago, or a little beef-tea. A dose of castor oil or rhubarb is given about the sixth day.

**Small-pox, or Variola.**—Of much more gravity and importance than the foregoing is small-pox, a disease, however, since the introduction of vaccination, deprived of a great deal of its virulence and fatality.

*It is an epidemic and contagious disease, which prevails among and attacks chiefly those who have never been vaccinated, or those who have been carelessly or imperfectly vaccinated. It is usually away from a*

town or district for a number of years (which is not the case with either measles or scarlatina), but when it does appear it necessarily causes no little dread. We earnestly believe that this should not be were Jenner's great discovery efficiently carried out, and doubtless of late years more attention is being paid to this. For ourselves, during the epidemic which raged in Edinburgh several years ago, we lost none who had been properly vaccinated, and we believe that was the experience of other medical men. Those who perished were unvaccinated persons from the remote Highlands and islands, or from Ireland, or the children of parents who disallowed vaccination. Some of these cases, dreadful in their symptoms and course, and terrifically fatal in their end, were fitted to leave an undying impression on the mind of the medical man. Some of these were loathsome in the extreme, and we wish that some of the anti-vaccinationists had attended them from the time of the attack until the terrible close. It surely would have indented their memory in a painful and useful manner.

**The Symptoms.**—The disease usually begins with pain in the back and loins, shivering, and then burning heat, nausea, and vomiting. There is severe headache, thirst, and want of appetite. Headache and pain in the loins, with chills, are about the most marked initial symptoms.

**Second Stage, or that of the Eruption.**—The rash usually appears on the third day. It makes its appearance in the form of small, round specks, of a

pretty bright-red colour. These become papules or pimples, containing a clear fluid, then pustules, containing pus or matter. The eruption most commonly begins on the face, about the chin and mouth, gradually spreading to the neck, chest, back, and lower parts of the body. In some young children the rash begins first on the thighs or neighbouring parts.

*Distinct and confluent pocks or eruption.*—When the pustules keep pretty well separated from each other, they are called distinct; when they run together, they are called confluent. This latter is the most severe and dangerous kind. It is well known that the eruption, together with the consequent state of the skin, emits a characteristic, peculiar, and disagreeable odour, which you do not have either in chicken-pox, measles, or scarlet fever.

*The eruption not confined to the skin.*—The rash appears inwardly as well as on the skin, viz., inside the mouth, throat, and nose, or nasal passages, etc.

**Third Stage, or that of the Decline, Drying-up, or Desiccation of the Eruption.**—This begins generally about the seventh day, and ends about the twelfth or fourteenth. Desquamation, or the falling off of the crusts, then follows, and according to the extent or severity of the pocks is the number of pits left on the skin.

**Treatment of Smallpox.**—There is no specific medicine for this disease. If the eruption comes out freely no diaphoretic, such as sulphur or Minderer's spirit, is required; but if it does not, give one or other



of these. The patient must rest in bed, and have a slight laxative dose to begin with. The apartment should be ample and airy, though free from draughts. The diet ought at first to be low and cooling; there is nothing better than potash water and milk, with the different kinds of farinaceous food. About the tenth or twelfth day a more stimulating and nourishing regimen should be adopted. If the case be a very bad one, viz., if the pulse be weak and fluttering, and the patient have nervous tremors, and looks, in fact, the picture of one approaching dissolution, some good wine or brandy ought to be given, but not unless these untoward symptoms crop up. Bleeding has been resorted to, but the less of it the better. If there were the complication of pneumonia or inflammation of the lungs, a dozen leeches on the breast might be admissible, but all would depend on the state of the pulse.

**How to prevent the Pitting of the Skin.**—Various methods have been suggested and practised with the view of preventing the ugly scarring and pitting so common in this disease, such as keeping the patient in a dark room, applying mercurial plasters over the pustules, or touching these carefully with caustic. We have not seen any benefit accrue from the foregoing methods; and, moreover, we have no doubt that any active interference with the eruption, locally, must be rather detrimental. On the third day of the eruption, however, a little of the following ointment may be *safely* and with benefit applied over each pustule, viz.,

Borax, one dram ; benzoate of zinc ointment, one ounce ; mix. This will do some good, but let us bear in mind that when the pustules are large and deep it is scarcely possible to prevent pitting. Patients should be thankful for escaping with their lives, and not too much disappointed though the severe malady has left permanent imprints on them. We ought to add that children often pick and scratch the pustules, and thus contribute to the pitting. It is as well, therefore, to wrap their hands in a glove without fingers, and the finger-nails should be kept short.

*The state of the eyes in small-pox, blindness, etc.*—It is not at all uncommon for patients to lose their eyesight from this disease. When the eyelids become inflamed, or a white speck is seen on the ball of the eye, it is high time to watch this important part carefully, and to secure the services of one experienced in this department, so that no means may be omitted whereby so unspeakable a blessing as seeing shall be secured. A number of our blind asylum inmates lost their vision through small-pox.

**Vaccination and Vaccine disease, or Cow-pox, etc.**—The vaccine disease is an eruption originally produced in man by contact with the virus of a disease existing on the udder of a cow. This virus, or matter, possesses the extraordinary and invaluable power of protecting human beings from the disease previously treated of, viz., Small-pox. The knowledge of this dates far back, but to Dr. Jenner, without doubt, is due the credit of pushing and establishing the thing.

He found that there existed in Gloucestershire a belief that persons who had been seized with an eruption got from contact with the udder of the cow, were protected from an attack of small-pox. Being convinced, by observation of the truth of this, he made up his mind to experiment. He tried to find if the disease could be transmitted from one person to another, and he found that it could. The matter was taken from a cow-milker, and applied to a child. This same child was afterwards inoculated with small-pox, or variolous matter, and resisted the contagion entirely. This, it is worth mentioning, was in the year 1796.

*The Operation.*—The matter is inserted, punctured, or scratched into the arm by a lancet, or other little instrument; even a needle will do. In the case of a girl, let the punctures be high on the arm. The best age is about two and a-half or three months. Many parents postpone and procrastinate until teeth are coming, which is alike a blunder and an offence. No mother has a right thus to delay this little operation. It was a gross mistake to extend the period in this country to six months; the regulation has been, and is, fraught with numerous evils. It is safe to say that, with carefully-selected vaccine matter, all will go much better with the child at two and a-half months than at five or six months. If the dreadful disease of small-pox—more terrible than the plague—be raging, let the infant be vaccinated, even although only a fortnight old. By all means let it have this certain protection *against* such a malady. There are cases where, when

small-pox was prevalent, infants four days old have been successfully vaccinated and protected. We may add that the pocks are sometimes not matured until the tenth day.

**What about taking the matter direct from the Cow?**—If a medical man is careful in his selection of matter, that is, from a healthy child, with a good type of pock, it is preferable to going to the cow. The reason is, that the matter from the cow produces more violent symptoms, and, moreover, cows are liable to eruptions which are not the real cow-pox, but which might be easily taken, or rather mistaken, for them. At the same time, it must be stated that Dr. Wormoulont, of Brussels, has had apparently excellent results from going direct to the calf.

**On the Evils of Vaccination.**—There are undoubtedly evils connected with vaccination, notwithstanding every care in the selection of matter by the most conscientious physician. But, to be plain, let us remark emphatically that the evils are oftener due more to the state of constitution and health of the child than to any bad matter, as is often imagined. When those bad results take place, the medical man is usually blamed, but this is really unjust; that is, if he is a careful, conscientious man. Such a physician does his utmost and best to select good matter, and he cannot, and ought not, to be held responsible for the results. What, now, are the evils? There is often intense inflammation of the arm, extending all the way down, even to the tips of the fingers, and the glands under the arm-pit become

inflamed and swollen. Erysipelas, or rose, sets in at times, and extends beyond the vaccinated arm, and the infant gets into a state of high fever. Abscesses, or gatherings of matter, may happen, leading to a fatal issue.

**Treatment.**—When the disease runs an ordinary course, there is no treatment required. Avoid rubbing of the pocks with any part of the dress. Do not purge the infant during the progress of the disease, unless about the first or second day, and only if it has been previously very costive. Castor oil is given on the eighth or ninth day, according to the state of maturity of the pocks. When the pock is slow in healing or drying up, use plenty of Fuller's earth, finely pulverized, or some sugar of lead water, or zinc ointment. In those graver cases, where abscesses arise, and where erysipelas appears, it is a bounden duty to secure first-rate professional skill. A month or two will often elapse ere the part heals, but that need not give much concern to the parent. The part heals less readily in damp weather and when children are cutting their teeth—a lesson again to parents and guardians not to delay the vaccination too long. To conclude, it should not be delayed beyond the end of the third month.

**On Children who are not susceptible of Vaccination.**—There are children whom medical men vaccinate over and over again to no purpose. The parent or guardian will say—"The pock has not taken ; *has the matter* been good, doctor?" "Certainly good,"

is the doctor's answer, because the same vaccine matter has succeeded well in the case of other children. Now, what is the cause, or rather, what are the causes of this insusceptibility? Well, if a child have any other disease lurking about it—we say lurking, because the disease may not be readily noticeable,—this will militate against success, or it will render the proceeding a failure. Various eruptions on the skin are adverse to success, and it should be left to the medical man to say whether the attempt should be made. He alone is justified and has the power to postpone it. But there are mysterious cases where the child's system has resisted the virus, or matter, three or four times. These examples, however, are very rare.

**On the communication of other diseases by Vaccination.**—There is an impression widely prevalent that other diseases are entailed on children by means of this operation. Experiments have been made in Paris and elsewhere, the results of which *do not* support this notion. Children were vaccinated from matter taken from others suffering from different diseases, and yet escaped those diseases. *At the same time it is the bounden duty of the doctor to select his matter from the healthiest possible child.* It is quite possible that one or two diseases at most may be communicated by vaccination. Let the parent confide in his or her medical man, assured that, taking the lowest estimate of him, he will do his best for his own credit.

**On Re-vaccination.**—It is a duty to re-vaccinate, say, at the age of seven years, or sooner if a virulent

epidemic be raging. One cannot be too strongly protected against such a loathsome malady.

**Rickets.**—This disease, which sometimes gets also the name of English disease, consists of a softening or softness of the bones, etc. It attacks children from one to five years of age ; rarely after this. It usually begins during teething. It is most common in scrofulous families ; or among children reared in close, ill-ventilated, and unwholesome rooms ; or among those badly nursed and fed, or fed on artificial food. Very often it is observed to set in when the child is being weaned, and where perhaps the mother, having kept the infant too long at the breast, weans it only because her milk has been getting weak, watery, and innutritious. It is rare for a child possessed of a fair constitution, and suckled by a healthy mother or nurse, to become affected by this disease.

**Symptoms and Signs of Rickets.**—It is difficult to tell actually when the disease begins. Among the first signs are the child becoming pale and flabby ; losing its bright and cheerful appearance ; and getting into a dull, peevish, and fretful state. It seems sore when handled, or even touched ; and if it lies quiet at times, it rolls its head from side to side, so persistently as to rub the hair off the back of it. It sweats profusely, the perspiration appearing in large drops on the head, and soaking its pillow. Digestion is imperfect, but there is oftener costiveness than diarrhoea. More striking signs to the ordinary observer *by-and-by* appear. The head appears larger in propor-

tion than the body, its separate bones are loosely put together, and the opening of the head is greatly enlarged. The wrists and the ends of the ribs become thickened, and the breast pouts out or projects, producing what is called "*pigeon-breast*." The spine also gets bent; and gradually the legs bend inwards, or more commonly outwards, occasioning "*bandy-legs*." This is owing to the bones being too feeble to sustain aright the weight of the body. The bones of the arm are frequently also curved. The teeth are slow in growing, and soften, and fall away prematurely.

**Treatment of Rickets.**—This is not a very fatal disease, that is, when unaccompanied with water of the head. In a good many cases the two diseases go together. The chief aim in treatment is to secure pure air and cleanliness, and to nourish the child properly. Damp, close, and ill-ventilated places must be shunned, but alas! with the poor this is often impossible. But even among the higher classes we have frequent cause to complain of inattention to hygienic conditions. Nurseries are often too small for the numbers in them; the infant is often laid to rest in a confined crib, closely curtained, and overladen with blankets: and the apartment wanting a fire-place at times, is heated with gas. Moreover, it will happen that an indifferent nurse neglects to give the child its bath regularly enough or efficiently enough. Then, as regards diet, if a mother's milk is unsuitable, let a healthy nurse be had, or where that cannot be afforded, resort must be had to good cow's milk, or goats' or asses' milk, or



condensed milk. Change of air, the seaside being best, is also highly beneficial. It is of service to rub the spine gently with camphorated oil or neatsfoot oil. The belly may also be rubbed alternately with the back. All awkward postures should be avoided when carrying the child; it should be kept when carried in a horizontal position. Perambulating often in the open, pure, country air is serviceable. When the child is nine months old, or so, it ought to have a little beef-tea. When about the age of fifteen to twenty months, some underdone meat may be given. As regards medicine, there is nothing better than cod-liver oil, and the syrups of iron, red and yellow. The disease often passes away after a time; the bones straighten wonderfully, and the general health improves immensely; still, many cases occur where the patient is rendered a kind of dwarf, the lower extremities being so much shortened or bent as to lower the height immensely. It is often all body and no legs, so to speak. The brain, we may add, is often extremely acute, and we have known many rickety patients to be little short of geniuses. Though deformed physically, they are adorned mentally; they seem to pride themselves even when young in compensating for the bodily defect by mental aspirations and ambitions, which not seldom lead to gains.

**Water in the Head, Water in the Brain, or Hydrocephalus.**—This is a disease which more particularly affects children of a delicate or scrofulous constitution, and it is more common under the age of five or seven years than afterwards. There are two kinds

of it, viz., the Acute and the Chronic. The Acute is usually fatal, defying all remedies and means ; while, on the other hand, the Chronic cases are often hopeful, the patient recovering after a good many years of suffering and distress.

*The Nature of the Disease.*—The disease consists of an effusion or flow of water into the ventricles or cavities of the brain, arising from an originally weak condition of the brain—the flow in which case comes on gradually or slowly. Or, on the other hand, the effusion or gathering of water may arise from an accident, such as a blow on the head, or a fall on the head. We must be plain and emphatic in saying that nearly all our cases, and we have had many sad ones, arose, not from accident, but from the state of the constitution ; that is, from hereditary causes. The poor mother or father will try hard to make out a story of accident at times, and maids and nurses will be impeached, even when blameless ; but let us repeat that the disease will, and does, arise under the best auspices ; where there has been no rough handling of the child, but, on the contrary, the greatest care and fondling. Doubtless, water on the brain has arisen after a fall, or a knock on the head, but let parents be assured that such a head, as a rule, was a frail and delicate one to begin with. While saying this, we do not for a moment underrate the importance of a vigilant and scrupulous care and management of the young, because it consists with our personal experience that healthy children have succumbed to disease of the brain entirely owing to the

carelessness of the female in charge. For example, they have allowed them to fall with great force on their heads, an accident that, at times, will damage the healthiest brain.

**Symptoms and Signs of the First Stage.**—The Acute form very often begins with vomiting, then headache, both being often very severe. When a child complains of a pain in the head, the parents should see after it in time. It may be merely arising from a disordered stomach, but, on the other hand, it may indicate that inflammation of the brain, the forerunner of water, has begun. A sharp dose of opening medicine will generally relieve a bilious headache, but, in the case of inflammation of the brain, the head pain continues, and deepens in severity. Other symptoms and signs are, the child being restless and irritable, moaning and screaming during sleep, tossing about in bed, and putting his hand often up to his head, or to one or other ear. The child may attempt to engage in his usual amusements, but ceases suddenly, runs and places his head, it may be, in the lap of its mother or nurse, as if feeling giddy or dizzy. There is usually a constipated state of the bowels, and considerable thirst. The motions are altered in colour, being pale or muddy-brown, and extremely offensive in odour. The pulse is usually a good deal quickened during the first few days. These are the chief signs and symptoms during the first stage, lasting from three to five days, and all may pass away with active treatment (though this favourable turn, it must be confessed, is rare), but, if *not*, the *second stage* is reached, where the symptoms

and signs become so apparent that a mistake as to the nature of the disease can scarcely occur. The fond parent may still indulge the hope that a cure is possible, but the medical man is unable to encourage the hope. He knows from bitter experience the delusive nature of such hopes.

**Symptoms and Signs of the Second Stage.—**

When this stage sets in the child loses all its playfulness and cheerfulness; it cannot longer sit up, but takes to bed, and wishes not to be disturbed. The eyes are closed against the light, which, shrinking from before, it cannot bear now. The eyebrows become knitted, and the face has a decided expression of suffering. When the eyes are opened, the pupil is seen to be dilated, and frequent squinting is observed. When the squint is noticed, we may almost invariably affirm that the last ray of hope is gone. Other signs are, flushing of the face, heating at the opening of the head, throbbing of the carotid vessels (neck), drowsiness, with occasional wakefulness, interrupted by moaning and crying, owing to head pain in particular. One can rouse the little patient up, and on asking a question as to how he feels, he will say shortly that he has pain in the head, and may point to it, then lapse again into a far from quiet somnolent state. At other times he will cry out in piteous accents—"My head, oh, my head!" We may remark here that the belly is usually retracted or drawn in, and some parents, noticing this phenomenon, will continue to imagine that the trouble is not in the head, but in the belly.

**Symptoms and Signs of the Third Stage.**—This stage is marked by a transition from drowsiness to stupor, from which the patient is with difficulty aroused. This stupor is only variegated by the automaton-like movements of one arm, or frequently by ugly convulsions, and these often hurry the termination of the sad disease. Before this the jaws may have become fixed, and the power of swallowing lost; at other times the patient will be able to swallow to the last, in a sort of mechanical manner. When near the end, the eyelids are often open, and the eyes look glassy, with matter on the edges of the eyelids, usually at the corners. A cold, clammy perspiration breaks out, the breathing becomes laboured, and death terminates the painful scene.

**Advice to Parents against delusive hopes.**—We think it right to say a word or two on this head. In the course of this painful malady, there are days in both the first and second stages when the child will chat and play for an hour or two, and be apparently free from pain. He will eat well, and enjoy a pretty fair measure of sleep. Notwithstanding these favourable-looking conditions, it will be well for parents to avoid being elated. We have seen their spirits get up often, and it was not unnatural; but only, alas, to be suddenly blasted! The favourable features were only short-lived. Let the parents trust to a good and skilful medical man; he will inspire hope when that is justifiable, but he will be careful not to cherish or to encourage false hopes.

**How long does the Disease last ?**—The average period is twenty-one days. Some will go sooner, but few last longer.

**Treatment.**—We shall not say much under this head, because the malady is one that ought to be dealt with by an experienced medical man, and not by an amateur. If parents are situated in a remote or sequestered spot, the following means and appliances may be adopted before the doctor arrives. A sharp purge, such as the following, may be given :—Calomel and rhubarb, according to age ; repeat next day, unless a free motion has been produced. Feet and legs to be bathed in warm water and mustard, and the spine rubbed with a liniment, such as the following, twice a-day :—Tincture of camphor, half an ounce ; spirits of hartshorn, two drams ; olive oil, two ounces ; mix. *No laudanum or morphia, or other soporific or sleeping draught, should be given, as such would infallibly do harm instead of good to the head.*

**Chronic Water of the Head, or Dropsy of the Brain.**—This is a disease which comes on shortly, and is indeed often congenital, or born with the child. The brain is morbid to begin with, although it may be a good while before symptoms and signs show sufficiently to arrest the attention of the parent or of a medical man. Some cases have arisen from too much blood going to the head ; others from a deficiency of blood within the head.

**Symptoms.**—Convulsions may call attention to the condition of the brain, although usually the parent first

observes that the head is too big and too soft, and, moreover, notices the infant falling off in flesh. The child may take the breast or the bottle greedily, but neither plumpness, nor rotundity, nor strength are maintained in proportion to the amount of food partaken of. The child has not strength to support the weight of the head, which, in consequence, inclines to one or other side. Diarrhœa is common ; at times, constipation, usually at least disordered bowels. The head is often hot, and beats at the opening, and there is restlessness and disturbed sleep. There will be, at times, prolonged periods of drowsiness ; at other times prolonged wakefulness, and plentiful crying. By-and-by the head becomes so much enlarged as to strike the attention of all ; the openings widen out, the forehead projects or juts out, the eyeballs become very prominent, and have a strange and striking downward direction. The eyes, it may be added, have frequently an almost constant rolling movement. The veins on the head get much swollen, and some of them not before seen, are observed to become prominent. As the disease progresses, various other signs and symptoms appear. The patient is unable to stand or walk, and staggers like an intoxicated person. Convulsions happen, and it is common to have a crowing sound in breathing, like that in croup. Appetite is capricious, and the food that would seem most suitable is refused. Emaciation continues, and a vast contrast is presented to the skeleton-like body, and the huge and *almost* adult-like head. Some children, we may state,

show great liveliness, acuteness, and precocity while suffering from this distressing malady. They will sing lovely airs, and talk brilliant dialogue.

*How long do such cases last?*—Very few survive this disease, teething or croup or other disease often cutting them off; but still there are those who have lived for many years, and some few who have entirely recovered. We know a few such. They may be observed going about in good health with heads of great size, requiring the biggest hat to fit them.

**Treatment.**—Whenever a child appears to be growing more about the head than the body, cod-liver oil, goats'-milk, cream, and mutton-tea should be given. The back and belly should be rubbed daily with olive oil. If the patient cannot take the cod-liver oil, some syrup of iron, commonly known as chemical food, may be given. It should have every advantage in the way of pure air and careful nursing. The sea-side even in winter seems best suited for their health. It has been proposed by some to make pressure on the head by means of plaster; by others, to rub mercurial ointment into the head; and, then again, tapping of the head has been practised. No great results have followed any of these measures. Sometimes it is useful, and a great comfort to the child to have a support for the head made. It is thus enabled to sit up better in a perambulator, and enjoy the fresh air out of doors.

**Are those who recover rendered permanent Idiots, or "silly creatures?"**—There is a popular notion and belief that children who recover from brain



disease are not much worth as regards mind or intellect in the future ; in short, it is averred that they are certain to turn out imbeciles, and that it is better for them and all concerned to perish than to exist ; they will only be, it is said, a burden and a trouble to their relations or friends. We have encountered many holding this belief, and who were not particularly anxious for the recovery of the patient. Now, let us say that there is no ground to go upon for such a notion. Few who recover afford by their deportment any warrant for such a belief. There are those existing and adorning various professions, and society too, who were the subjects of this disease in youth.

#### **Hypertrophy, or Overgrowth of the Brain.—**

Although a too large and rapidly growing head may indicate chronic disease of the brain and the effusion of water in many cases, there are others where these conditions are absent. Parents become naturally anxious and distressed when they see the cranium of their fine boy, it may be, becoming unduly large ; but it is a consolation to know that every big head does not mean water. The great increase of size arises in some cases from what is termed Hypertrophy of the Brain. In the case of some children the head has grown so bulky, that it is quite a burden to carry ; and even when sitting the head has to be propped and supported. Sometimes the little patient will stagger when walking, and then lie down on a couch, or on the floor of the room, in order to rest his head and his weary frame. Now, *in not a few of these cases there has been no water*

existing within the brain; only the increased size of the brain and of the skull. This has been judged by the symptoms, or rather by the absence of the ordinary signs and symptoms of water on the brain. For example, there have been no convulsions, no squinting, no alternate drowsiness and startings, no crying or moaning, as of head pain; no alteration in the state of the pupil of the eye. The disease is rather a rare one, and usually is observed to begin at or about the age of six months. It occurs chiefly, if not solely, in scrofulous children; and if death takes place, it is commonly owing to the debility of the child; or he may, being generally feeble, be carried off speedily by the onset of some other disease. We may state that the weight of the head, together with the frail state of the bones of the trunk and extremities, induces those deformities which we have described under "Rickets."

**Treatment, etc.**—Children in course of time often get better of this ailment, the body becoming stronger and the head not developing so fast; but, in some sad cases, *idiocy* has resulted. It has at times, too, been associated with Cretinism, a disease which we describe elsewhere. The treatment consists in giving tonics, such as the syrups of iron, mitricine, and cod-liver oil, oil inunction, sponging with sea-water. The child should be sent to the sea-side in fine weather, and all the ordinary good sanitary conditions be attended to. Iodine may be painted now and then on the back of the head, and the back and abdomen daily rubbed with oil.

**Tubercular and Simple Meningitis, or Inflammation of the Membranes or Coverings of the Brain.**—This disease is very prevalent among scrofulous or tubercular children. It is sometimes called Acute Hydrocephalus. It is an extremely fatal disease.

*Causes.*—The tubercular variety is caused by the deposit of miliary tubercles on the arachnoid membrane of the brain in scrofulous children. It is apt to arise in the course of teething, or some diseases such as scarlatina, measles, or whooping-cough. Meningitis, without the presence of tubercle, may arise from a fall or a blow on the head, or exposure of a child to the sun, *coup de soleil*.

**Symptoms and Signs.**—In the first stage of this fatal malady we have vomiting, headache, and constipated bowels. The headache is often extremely bad, the child crying out, and rolling its head from side to side. He lifts his hands to his head frequently, and presses against the head; sometimes the hand is applied to the ear; but usually it is to the brow, where the pain seems greatest. Some children cry in a most heart-rending manner, indicating the severity and acuteness of the pain. The cry, which has been termed the hydrocephalic, is sharp and shrill. The patient may have a short but uneasy period of rest or half-drowsiness, but soon he starts up, tosses about and cries, owing to the agony. Other signs are, the child being excited and irritable alternately, grinding the teeth, shunning the light, knitting the eyebrows. Squinting is common. Notwithstanding these marked and ominous

symptoms, the child during the first stage has all his wits about him ; he will ask, poor boy ! how he happens to see double : to see two mothers, doctors, or nurses ; to see the familiar objects of his apartments, which he has often gazed upon with satisfaction and pleasure, turning out to be double. The appearance of the face during the first stage is very characteristic. It often becomes exceedingly pale, then a sudden flush or redness comes on. The hearing becomes intensely acute, and the skin very sensitive. On moving the child these flushes come on, and it experiences great distress.

**Second Stage.**—In the second stage of meningitis the headache is less acute. Delirium, however, comes on. This is commonly from the sixth to the tenth day. Convulsions also set in, and the patient lapses occasionally into a somnolent state, with now and again periods of wakefulness. There is no peace for the child, however ; pain continues, and gradually coma sets in. There is then insensibility, stiffness of the limbs, closure of the jaws. The child no longer notices what is going on ; he is almost deaf and blind ; he answers no questions, he is unable to swallow, his urine passes away in the bed without his effort or knowledge, and the same with the stools. Death soon takes place, and is usually hastened by convulsions. The duration of the disease is about three weeks.

**Treatment.**—In tubercular meningitis there is scarcely any hope of a cure being effected ; but in other forms, that is, inflammation arising without the presence of tubercle, we may save the child at times by

careful treatment. But the majority of cases are unfortunately of a tubercular character. Of course the best medical skill should be early summoned, but in the absence of this for a time, some measures may be adopted. A brisk purgation of calomel and rhubarb should be given, and ice applied to the head. Turpentine cloths, or linseed meal and mustard should be applied to the soles of the feet and the thighs. The ice may be used in a bladder, or light cloths may be dipped in the ice-water and placed on the head. When the medical man arrives he will judge of the propriety of bleeding. The usual method is by leeches on the temples or the soles of the feet. Blisters are used with benefit, and in some cases the rubbing in of mercurial ointment into the thighs has done good. A favourite medicine with some is the iodide of potassium. All these measures and means, to be of any avail, should be adopted early. In the later stages, their employment is only calculated to add torture to agony; to annoy without the prospect or shadow of relief.

**Apoplexy, Congestion of the Brain, Cerebral Hæmorrhage, etc.**—These states of the brain are not very common in childhood, but now and again we meet with congestion of the brain, or simple apoplexy, which sometimes terminates fatally by the blood bursting through the vessels of the brain. The disease consists of an overloading, or turgescence, of the vessels of the brain, true apoplexy being constituted when the blood-vessels burst or give way. The disease is most frequent soon after birth.

**Causes.**—These may be, severe and protracted pressure of the child's head in the process of parturition; or some mechanical hindrance to the return of the blood from the brain, as the pressure of an enlarged thymus gland; or bronchial glands upon the jugular veins and others. Congestion may happen, too, owing to the blood circulation being disturbed during eruptive fevers. Teething, blows on the head, and exposure to the sun are also causes.

**Symptoms.**—Restlessness, feverishness, headache, vomiting, grinding of the teeth, fixing of the eyes, dilatation of the pupils, snoring breathing (stertorous respiration), and general insensibility. The breathing, too, in new-born children is panting, and sometimes almost awanting, and they die from asphyxia. Some of the muscles become paralysed, others stiff or rigid.

**Treatment.**—This consists of ice to the head, careful leeching, poulticing, and generally the other remedies and means named under the head 'Meningitis.' No stimulating diet should be given; only the simplest food.

**Effusion of blood outside the skull; Cephal-hæmatoma. Blood beneath the pericranium.**—The small vessels of an infant's scalp sometimes give way and produce a tumor, cephalhæmatoma, which is observed an hour or two after birth. It is most common on the upper part of the right side of the head. On passing the finger across it you would almost imagine that a bit of bone was awanting, and nurses become alarmed, if they have had little experience. The swelling increases in size for a day or two, but

rarely becomes bigger than a chestnut. There is not much, if any, inconvenience or pain caused by it; it gradually passes away, although the time of its disappearance may occupy from eight to twelve weeks.

**Treatment.**—Do not let any one cut it. It has been cut, and with fatal result. Let no nurse or other party trouble the parents about it, advising this sharp practice and the other. The only application necessary is a little lotion of vinegar and water, with some muriate of ammonia dissolved in it, and applied occasionally with a bit of linen.

**Cancer of the Brain.**—This is an extremely rare disease in children (indeed, in adults), but cases have been met with. They are always fatal.

**Softening of the Brain.**—In children, this is one of the results of inflammation, but may arise from injuries to the head or penetrating wounds. The disease is usually fatal.

**Convulsions, or Convulsive fits.**—It would scarcely be necessary to give a description of a convulsive fit were it not that we find nurses and others sometimes declaring that an infant has had a fit when such has not been the case. A fit arises from a disturbance of the nervous system, due to causes which we shall enumerate, and which is characterised by the following characters or signs. At the outset the muscles of the face twitch, the body gets stiff and immovable, the head and neck are drawn backwards, and the fingers are drawn into the palms of the hands. The eyes are *fixed and staring*, and the white of the ball only is

seen. Sometimes the eyelids are open, at other times they are shut. The muscles of the face are sometimes fearfully contorted or distorted. Let not the nurse or parent confound what is called an "inward fit" with the more serious kind. As regards the inward fit, or small approach to a fit, the child has slight twitches of the muscles of the face and usually about the lips. He sleeps with the eyes half open, but the face, instead of being distorted, presents a sort of smiling aspect.

**Causes of Convulsions.**—These are numerous, commencing with disease of the brain, teething, worms, disordered stomach and bowels, and stoppage of water after scarlatina. They arise, too, during measles, whooping cough, exposure to intense cold, or to a bright sun with the head uncovered. Intense pain, and emotions, whether of fright or of joy, will also induce them. The most common causes are teething and disease of the brain. Some children have a fit with every tooth, and get on well. Others have many fits during teething, and also recover well. Let us not be unduly alarmed then when convulsions occur.

**Treatment.**—The treatment depends greatly on the cause. The cause must be looked into, and obviated or conquered. When a convulsive fit comes on, place the child in a warm bath, 96° F. or so, for about ten minutes. Slip him in gently, and place him in the bath equally gently. A little mustard in the bath will prove beneficial. Dash plenty of cold water on the face and over the head. While the child is in the bath rub the *spine* down gently and continuously for at least



ten minutes with a little camphorated oil, or olive oil, or any other at hand that will not break the skin. Rub the belly gently also, and with castor oil if the little patient has been of a costive habit. If the fit is very prolonged, or if the convulsions recur at short intervals, and with terrific violence, it is proper to use a little chloroform. This is quite safe. Ten drops on a handkerchief may be applied over the mouth for some little time, watching the infant well. This will subdue the fit, and if another returns, continue the chloroform. If the fits arise from teething, scarifying of the gums often arrests them. When the convulsions cease the infant should be placed in warm flannel, with the head kept cool, in a quiet, well-aired apartment, free from too much light or noise. The state of the bowels should always be carefully attended to. If not satisfactory, give a little rhubarb, or castor oil, or senna, or manna. If the child after recovering so far from the fits, still starts, and appears to be what is ordinarily termed nervous; if it sleeps badly, and has twitchings of various muscles, a good medicine to give is the bromide of potassium. It is a thoroughly safe medicine to give. A little on a threepenny piece in water is safe for a child of a year or so, and it may be repeated every four hours. This medicine soothes greatly. Chloral should not be given unless under the auspices or supervision of the medical man. It is, however, highly beneficial in soothing the disturbed state of the nervous system.

*What not to do.*—Do not give laudanum, or

morphia, or quack soothing medicines. Do not torture the child with successive mustard poultices. A little mustard, mixed with oatmeal, or flour, or linseed meal, applied over the belly may be beneficial, but it must be remembered that mustard, pure and simple, causes great pain, often aggravating instead of arresting the convulsions. As we have said, a little mustard in the bath is beneficial. No leeching or blistering must be resorted to unless under the doctor's orders.

**Convulsions, continued, Eclampsia Nutans, or the Salaam Convulsion.**—This is a peculiar form of convulsion, which happens to infants at times, though very rarely. Those affected bow the head and bend the body a little forward, this movement being repeated frequently and rapidly, and sometimes as often as from 20 to 100 times before it ceases. The singular movement may not return again for from twelve to twenty-four hours. During the movement, the child seems unconscious, but when it ceases this passes entirely away, and the little one becomes lively, bright, and cheerful. Some believe that these convulsive movements are, if not due to disease of the brain or nervous system, at least forerunners of these, but undoubtedly many children become perfectly well after a time, no evil consequences ensuing. There are instances, however, where such children have become epileptics, and where lasting impairment of the intellect has been induced. These bad results are happily rare, as we can testify from our own practice. We have met with a few children liable to these peculiar oscil-

latory movements, and to this day we have our eye upon them, and find them healthy enough in body and sound enough in mind. They are not impaired in intellect, nor have they suffered from epileptic convulsions. As regards the treatment, that consists in keeping up the general health, in bathing with salt water frequently ; and of course the little one must be watched and tended with care during the movements of the head, for injury may be done unless this is attended to. In the way of medicine, small doses of bromide of potassium seem to do good. Plenty of out-door airing should also be had.

**Child Crowing, Spasmodic Croup, Spasm of the Glottis, or Laryngismus Stridulus.**—This is a form of infantile convulsion of a rather alarming character, and which has to be carefully watched, because in not a few cases children have died from it almost in the twinkling of an eye. A mother may have left her babe in bed or in the cradle, apparently in fair health, and in a brief space the child has begun to crow during breathing, has got blue in the face, and perished. It is more common in boys than girls.

**What are the causes of this terrible malady?**—It almost invariably happens during dentition, or teething ; and it is noticed that those liable to it are scrofulous. Some cases are undoubtedly due to disease of the brain ; others to a swelling of the thymus gland, which thus presses injuriously on both blood vessels and nerves.

**Symptoms.**—Great difficulty of breathing, generally

coming suddenly on, and accompanied with a crowing sound, frequently repeated. The child is greatly distressed for want of breath, tosses about and struggles, his head is bent backward or to one side, his eyes are fixed and staring. The crowing often occurs at night, and arouses the child from its slumber. The thumbs are frequently drawn in to the palms of the hands, and the toes are bent under the feet. When teeth are growing, the disease may last a long time, giving great anxiety to the parent; at other times, it speedily and entirely disappears. But, as before remarked, it snatches some children away so suddenly as to render treatment impossible.

**Treatment.**—Scarification of the gums in some cases, as judged by the family doctor. Marshall Hall, a great authority, strongly recommends this, and we are bound to say, though not prone in general to scarify, that it ought to be done in these grave and anxious cases. In scarifying, we should endeavour to avoid injuring the growing tender tooth. If the disease depends on derangement of the stomach or an unhealthy state of the system, we must alter these conditions by the best aperients and tonics. A drop of essence of peppermint, along with a little ipecacuanha wine, and bromide of potassium prove very beneficial. These things only relieve; they do not cure; but the disease usually passes entirely away after teething, and leaves the infant in perfect health.

**St. Vitus's dance, or Chorea, or Choreomania.**  
—This is a peculiar nervous disease, marked by in-

voluntary contractions of different muscles of the body. It rarely attacks a child under five years of age. Girls are more liable to it than boys. It has often been brought on by some shock to the nervous system, such as a sudden fright or blow ; but there is always a previous liability, such as an excitable and nervous temperament.

*How does it begin?*—Often with twitching of the muscles of the face or of other parts. These come on gradually, and are usually moderate at first. The contractions extend to the muscles of the arm and the leg, and are usually confined to one side. By-and-by the contractions become more severe, and then the patient has most awkward and fidgetty movements, which he cannot control. He has so little power over his movements, that he may stumble and fall. The strangest grimaces are presented, owing to the inordinate and uncontrolled contraction of the muscles of the face. If the patient tries to seize or hold any object, he is apt to miss it, or seizing it, to let it fall. The disease co-exists in many cases with rheumatism, but the latter can by no means be deemed the cause of it. In addition to the distortion of the muscles of the face, the child stammers frequently in speech, and has difficulty in swallowing, solids or liquids going down by gulps. There is in some cases a slight impairment of the intellect, a kind of half imbecile condition. Although many persons are affected by this disorder only in a slight degree, there are cases of a severe and painful nature, and where the movements are so violent as to occasion injury. For

example, there are patients in whom, from an uncontrollable grinding of the jaws, the teeth have been loosened, and driven from their sockets; in others, the spine has been greatly bent backwards. The movements continue at times when the patient is in bed, and if care is not exercised he may tumble out and injure himself. The heart is sometimes, at least, temporarily affected. The *duration* of the disease is very variable. It may be cured in a month or two, but it may last six or nine months. Relapses are common, and the malady may become chronic. The disease is rarely fatal.

**Treatment.**—The treatment of St. Vitus's dance is often a tedious matter. A medical man should always be consulted, but we will here give some useful hints and directions. First of all, attend carefully to the general health of the patient in the way of giving him as much pure air as possible. The seaside in summer affords the best air. Attend well to the state of the bowels, because there is usually costiveness of an obstinate character. A good strong purgative of rhubarb is required every few days. Then tonic medicines must be administered, such as different preparations of iron. The saccharated carbonate of iron may be used first; afterwards the yellow and red syrups; and, again, the ammonio-citrate of iron. When these fail, we have recourse to arsenic and strychnia, but these are medicines only to be prescribed and superintended in their use by the family doctor. Bathing and gymnastics and a judicious use of

the shower bath are often beneficial. The water should be salt, and, to begin with, tepid ; and it must not be dashed on so suddenly or forcibly as to frighten the patient, or produce a great shock. Warm sulphur baths are much employed on the Continent. As regards gymnastics, the method of employment is as follows :—The patient is first laid on his back in bed, and steadied by a few assistants. The limbs and chest are kneaded or shampooed with the open hand (the latter besmeared with camphorated oil or neat's-foot oil) for a period of from half-an-hour to an hour. Afterwards the spine and adjoining muscles are treated in the same manner. This rubbing must be carried on for some days, and afterwards the arms and legs are put through a series of regular movements of flexion and extension, the patient still lying on his back.

**Moral Insanity, Precocity, etc.**—This is a disease brought on by overworking the brain of a child. The intellectual powers of the young should not be too sedulously cultivated. It is all very well when there is a robust frame and a strong nervous system, but in delicate children, with an excitable nervous constitution, we ought to refrain from pushing education too fast, *that is, if we can*. Some children will not be restrained ; for, owing to a great development of the finer parts of the brain, they will push on and indicate great precocity. Parents are often much charmed and elated by the exhibition of sharp powers and bright intellect on the part of their offspring, and this is only natural ; but, as a rule, there will be more cause for jubilation if the body

develops more sensibly than the brain, or intellect, or mind. The dunce, or child with a dull mind, often emulates well the boy of precocious powers, and after a few years may excel him, and win the race. Many a bright intellect that has irradiated and adorned science, poetry, and the arts, was a very poor and *duncey* one to begin with. When the brain is thus over-tasked, especially in the case of delicate, irritable children, a morbid state is induced, which is manifested by an alternate peevishness and furiousness, even amounting to a kind of insanity. Children thus affected, or, we may say, constituted, are often very capricious. At one time they will be in a state of quiescence; at other times they will wax into a condition of extreme rage, and assault even kind friends around them. These kind friends may have greeted them with words of affection and love, but in proportion to the warmth of the greeting will be the intensity of the hatred and anger returned. Abusive language is given, and blows are not uncommon. The patients are objects of the utmost sympathy.

**Treatment.**—Attend to general health. Restrain precocity, by stopping education—that is, in a public school. Use every means for promoting the development of the body, such as sea-bathing; and the use of goat's or asses' milk, with tonics, such as syrup of iron, etc.

**Infantile Paralysis, or Palsy.**—Palsy in childhood is not by any means uncommon. Some children are *born with it*; in others, again, it is due to the



severity of the labour, and perhaps owing to the use of instruments. The palsy is usually confined to one side, and the leg and arm become feeble, attenuated, and powerless. In adults, palsy is rather an ominous ailment. In advanced years power seldom completely returns; and the second or third seizure commonly destroys life. In children, on the contrary, the disorder is rarely fatal: if it has been brought about by the accidents of parturition, a week or two will see the restoration to power and movement. In other cases, however, the palsy is permanent. The child has been born with a diseased brain or nervous system, and no treatment will do any good. It may be mentioned that the limbs on the paralysed or palsied side are always thin and wasted, the face on the palsied side is also reduced, and contrasts with the opposite side. Usually those who are born palsied are deficient in point of intellect. Paralysis or palsy sometimes comes on during teething, or from severe cold, or obstinate constipation of the bowels. But the palsy usually passes off in all those cases where it has been brought on by pressure during parturition, by cold, constipation, teething, etc. Where the palsy is permanent, we may conclude that the child has been born with it; in short, that it is congenital. In such cases, children are not only palsied, but, as before said, weak-minded. The wasting and deformity of the palsied limbs are very conspicuous. Children may have palsied limbs, and yet, after, it may be, several years, recover power again. *Tonics*, change of air, and galvanism, form the principal

treatment; and rubbing down the spine should not be overlooked. Friction of the palsied limbs should also be carried on daily by means of a liniment of camphorated oil and rosemary spirit. The baby-jumper is a delightful exercise, too, and helps to brace the limbs. When a certain degree of power returns, the go-cart enables the child to walk, by giving it support and a sense of security. It has this disadvantage, however, that the child has to lean rather too much forward in walking. The straps and galvanic appliances of Smail in this city, as well as his method of localised galvanism, are of infinite utility and benefit.

*Palsy of the Face of Infants.*—This is usually the result of the pressure on the head (or the nerves) by the midwifery forceps, and it commonly passes off in a week or two at most.

**Tabes Mesenterica, or Abdominal Consumption.**—Tabes, like phthisis, signifies a wasting, and while the latter is applied to the disease in the chest, the former is confined to that of the belly. Tabes is a rather frequent disease among the young, and also a very fatal one. The disease consists in a deposit of tubercle in the glands of the mesentery, leading to enlargement of them, and an interference with the proper play of their function. Though the glands enlarge, they rarely suppurate, or form into an abscess, but when pervaded by tubercle they are rendered unfit, as before said, for absorbing the lacteal fluid or nutriment derived from the food in the alimentary canal, or promoting its assimilation. The child thus dies of

gradual starvation. Some authors say that the disease is rare. In our experience it has turned up too often. It is not a rare ailment, and, moreover, it is seldom a curable disease.

**Causes.**—The scrofulous, strumous, or tubercular diathesis, or constitution.

**Symptoms and Signs of Tabes.**—Want of appetite; irregular action of the bowels, diarrhoea generally prevailing; pain over the abdomen, and by and by, immense enlargement of the belly. This latter becomes amazingly expanded, and is as tight as a drum. In such cases it seems all belly, other parts being feeble and shrunken. The child becomes emaciated; at times it greedily partakes of food, but often rejects it afterwards. The condition of the abdomen in tabes should be well attended to for diagnostic purposes; for we may have an abdomen expanded greatly by wind, without any trace of tubercular disease.

**Treatment.**—There is unfortunately little in the way of effective treatment in advanced cases of tabes. If we detect the disease early we have more encouragement to hope for benefit or cure. The unhealthy action of the bowels, the mixed and unhealthy character of the motions, require laxatives to begin with, and the best is undoubtedly grey powder, along with a little rhubarb, frequently repeated. When diarrhoea is profuse we check it by the use of lime water, and by the administration of extract of logwood, and other astringents. Iron and cod liver oil are also *useful* in altering the constitution, but many children

cannot take the oil. The belly is to be rubbed occasionally with an ointment, consisting of three parts of iodine ointment and one part of mercurial. Twice a-day also we are to rub the abdomen gently, and for at least fifteen minutes with warm olive oil or neatsfoot oil ; and if there be much pain a warm poultice of bran applied, after rubbing in a small quantity of laudanum, will help to soothe.

**Peritonitis, or Inflammation of the Peritoneum.**—This disease consists of inflammation of the membrane that invests the bowels, but among the public it is generally, though erroneously, termed *inflammation* of the bowels. It is of frequent occurrence in newborn infants, but becomes less so as they grow up a bit. In its acute form, that which we are now considering, it has an extremely painful and usually swiftly fatal affection. Its treatment demands the highest skill and the greatest promptitude.

**Causes.**—A main cause is the scrofulous constitution, or some diseased condition of the blood, such as syphilis. It may arise also in the course of some other disease, such as scarlatina.

**Symptoms and Signs.**—Intense pain over the abdomen, which is tender to the touch, and in the worst cases can scarcely bear the weight of a feather. A shivering often heralds the pain. The pain continues constant, and the child has a haggard, anxious, woeful look, and shrieks owing to the agony endured. He lies on his back with his knees drawn up, and cannot bear the bed-clothes to touch his abdomen. The pulse

is rapid, the tongue usually dirty, and generally the bowels are constipated. As regards the pain of this terrible malady it has been remarked that "it is the severest that human nature can suffer." A fatal termination may take place in from twenty-four to forty-eight or seventy-two hours, death being preceded by cold clammy sweats, and sometimes hiccup. Sometime before death there is an absence of pain; and parents and nurses are apt. to mistake this for improvement, and to cherish hopes of recovery. It is no wonder, for a mother will hope against hope almost to the last. It is some little consolation to see the exquisite agony depart a little while before the breath goes out.

**Treatment.**—Before the physician, who ought to be sent for early, arrives, a flannel cloth, dipped in hot water and wrung out, is applied over the abdomen. Some turpentine should be poured over the flannel, if it be in the house; if not it ought to be sent for without delay. Laudanum is the medicine we depend on in the case of the young; and it should be used, keeping in mind the caution given in regard to its administration in the young. Leeching the abdomen is often required, but the family doctor will have the charge of this, as also of blistering, etc.

**Goitre, or Cretinism, or Bronchocele, or Derbyshire Neck.**—This is an affection of the thyroid gland (located in the front of the throat), and consists of an enlargement of it, generally brought on by the *use of water* which has passed through magnesian lime-

stone. The disease is not very widespread ; it is almost exclusively confined to districts of a peculiar geological formation ; that is, those containing a deal of calcareous salts, such as the carbonate and sulphate of lime. It was wont to be supposed that the drinking of snow water induced the disease ; but in countries such as Greenland and Lapland, where snow water is used, the disease is absent. In Sumatra the disease exists, although snow is never seen. In Yorkshire, Derbyshire, Nottingham, Hants, and other places where magnesian limestone exists, the disease prevails extensively ; thus shewing that water impregnated with such salts has much to do with the disease. Cretinism is associated with a particular form of idiocy. The mind in such cases is sometimes only dull ; at other times, intelligence is entirely wanting or abolished. We may state that the great majority of cretins are found in the valleys of Switzerland, in the Pyrenees, in the mountainous parts of Syria, and in the Himalayan regions. The cause of the idiocy or impaired mental faculties, is understood to be owing to a thickening of the bones at the base of the cranium, whereby the openings for the transmission of the blood-vessels of the brain are greatly reduced, and the brain itself is thus not properly nourished.

**Treatment.**—The patient should be removed from the district where he has been residing to one where there is no chance of being punished with the detrimentally impregnated water. If this cannot be done, rain water should be alone used ; and this is found to

be of great service. The swelling gradually diminishes in size, and ultimately passes away. For internal use, a mixture of iodine and iodide of potassium is given. Painting the swelling with iodine, or rubbing it with mercurial ointment, does good. If not, if the tumour still continues, and presses injuriously on contiguous parts, various surgical operations are recommended, but the fewer of these the better.

**Epilepsy, or Falling Sickness.** — Convulsive diseases in childhood are frequent, but the disease which we are now to treat of, is about the most important and distressing of them all. To use the words of the eminent physician, Sir Thomas Watson, of London, it "is scarcely less terrible to witness when it occurs in its severer forms than tetanus or hydrophobia, though not attended with the same urgent and immediate peril to life. Yet it is productive of even more distress and misery, and is liable to terminate in even worse than death : a disease not probably painful in itself ; seldom immediately fatal ; often recovered from altogether : yet apt in many cases to end in fatuity or insanity ; and carrying perpetual anxiety and dismay into the families which it has once visited." He adds (and we must endorse the painful statement) "that it is a 'dreadful announcement to make to a father or mother that their child is epileptic." In ancient times, the sad disease was supposed to be due to possession by an evil spirit.

**Causes of Epilepsy.** — Hereditary transmission, peculiar and often obscure conditions affecting the *nervous system*, fright, emotions, such as anger, etc.,

falls, or blows on the head, errors in diet, weaning, kidney disease, dentition, vaccination, scarlatina, and other eruptive fevers. Hereditary causes are supremely important. Parents who have led a dissipated life, who have got their blood poisoned in various ways, entail on their offspring certain nervous conditions, which may eventuate in the terrible malady we are treating of. Teething, fear, anger, or excitement of any kind, injuries, fevers, bad feeding, etc., would, one or other, scarcely induce the malady were there not present certain transmitted peculiarities or frailties of the nervous system, malformation of the skull and the brain, etc. It is found that the disease is most liable to occur at the age of from one to two years ; and again from five to ten years. The French call a slight seizure *petit mal*, and a graver one, *grand mal*.

**Symptoms and Signs of Epilepsy.**—The epileptic fit often comes on very suddenly. The patient feels a strange and indescribable sensation (aura) coming over him, then utters a piercing scream, and falls to the ground senseless and convulsed. In adults this dreadful shriek has served to frighten women almost out of their senses ; and it is certain that it has so much excited pregnant women as to cause abortion. The aura that precedes the attack is described as a sensation on the skin as if spiders or other insects were crawling on it. Vomiting is sometimes a precursor of the fit. The other characters of the fit are, straining and struggling, frothing at the mouth, turning up of the eyes, the white only being seen, clenching of the fingers, and



protrusion of the tongue. The neck is twisted, the features fearfully distorted, and the brows are knit. The urine, and sometimes the contents of the bowel, passes involuntarily. At times the convulsions are so strong as to lead to injury of parts, such as the tongue, and even to injure or dislocate certain bones. After the convulsion, the patient commonly falls into a state of sleep, but it is more a state of insensibility than true repose; he awakes, after a longer or shorter time it may be, partly refreshed, yet still dull in mind and not a little incoherent in speech, and unaware of all that has happened. We may add that, at the commencement of the disease, the attacks usually come on during the night.

*The Course and Termination of Epileptic Fits.*—Parents are naturally anxious to know what prospect of eventual recovery there may be in this disease. If epilepsy begin during teething there is some hope of it ceasing when this process is completed, and it is found that the malady ceases frequently betwixt the fourth and sixth year. If the disease occur during the changes in the system which herald the period of puberty, then we may indulge some hope that the maturing of those changes may be favourable, and that the disease may cease. We are not to be too sanguine, however, as to the convulsions passing finally away then, nor to rest on our oars, so to speak, or be lulled into a do-nothing policy or practice on the ground of so uncertain a hope; but must do everything in our power in the way of discovering the cause or causes, and adopt-

ing and perseveringly carrying out the proper treatment.

**Treatment of Epilepsy.**—When the disease arises in the course of teething, we do all in our power to promote the cutting of them. The attacks have often occurred during the cutting of the permanent molars. In such a case, we should give the boy or girl a change of air ; rub his spine, use the shower bath, etc. Then, education should not be pushed much. Epileptic children are often dull of intellect, and frequently cross and wayward in temper ; so that they have to be treated very judiciously, and not driven hard at any task of a burdensome kind. If the fits have been brought on by the driving in suddenly of any skin eruption, we must use counter-irritation on the back or abdomen, as well as on the head. If young persons indulge in vicious habits (some have been known when very young to indulge in alcoholic drinks, tobacco, snuff, etc.), these must be checked—nay, stopped—as being extremely detrimental. Restraint must be firmly carried out in such a case. While the mental faculties are not to be strained, cheerful pursuits and occupations should be encouraged, such as music, reading of pleasant books, and out-door exercise, involving as little fatigue as possible. Gymnastic exercises have proved beneficial in some instances. The diet should be carefully attended to. It ought to be plain, and as little stimulating as possible ; such as farinaceous food—milk, vegetables, and sometimes fish. Little or no meat *should be given, as it is found to increase the frequency*

of the convulsions, as well as to make them more severe. In some very feeble children, we may, with safety, deal more generously. Bleeding and purging are not resorted to. As regards medicines, there are a few that have proved useful, and which we may name. They are—oxide of zinc, bromide of potassium, belladonna, nitrate of silver, and preparations of iron when the child is anæmic. One or other of these medicines is to be given for a lengthened period, under skilled advice. Benefit will be got at times from such remedies, but our hopes are necessarily small when we find the disease to be hereditary, or where there is disease, or malformation of the brain or of the spinal cord, or a deeply strumous constitution. It should be mentioned that nitrate of silver after a time gives a plumbago colour to the face.

*What to do when the Fit comes on.*—The patient should be placed on the bed or on a large cushion on the floor, with his head slightly raised. Everything about the neck or throat should be immediately loosened, and a piece of cork inserted as quickly as possible betwixt the teeth, in order to avert injury to the tongue, as well as the breaking of the teeth. The limbs may be restrained by attendants or friends. Almost supernatural strength is evolved in such cases, and even a young person may require several powerful people to hold him. A waistcoat laid across the body, and held pretty firmly down, answers very well. Cold cloths may be applied to the head; and, if the feet are cold, warm bottles are requisite. We know of

nothing that will shorten the fit. It has been said that putting salt into the mouth has tended to do so, but this is somewhat doubtful. The younger children may be laid in a warm bath, the head being held up, and cold applied to it.

**Malingering and Hypochondriasis.**—There are children, as there are adults, who profess to be ill when they are really not ill. Their tasks may be pretty severe at school, and they are inclined to shirk them. They will complain of a pain in the head, or in the belly, or in the back, or, indeed, in almost any part of the body, but careful examination will fail to make out any ground for these. Then there are those who, it may be, have a trifling ailment, but who exaggerate its importance immensely, owing to a lazy and indolent disposition. Such children are often made worse by foolish mothers, who allow a natural fondness for their offspring to run complete riot. They are petted and indulged until a really bad state of health is induced, and which might have been obviated by a little firmness, and the chasing away, in a playful manner, of absurd fancies and whims. When such perversions of the moral faculties exist without any physical cause, the chief treatment then is, of course, moral. The physician, however, has to guard against classing every whimsical child, who thus frequently complains when any task has to be faced, or duty encountered, as a malingerer. There are sometimes obscure affections of the brain and nervous system which may account for the illness complained of. We have met with little patients whose cases were too lightly

treated. They would be driven to school when really unable to go, as was discovered afterwards on the appearance of disease of the brain or of the spine. There are some children of a very fine and sensitive brain and nervous system, who suffer more than one can imagine, who shrink from the rough bustle and excitement of a public school, and whose cases demand our warmest interest, sympathy, and care. They require to be gently treated, have plenty of fresh air and cheerful society, and their lessons should be light and few until they become stronger. A fair admixture of sprightly music ought also to be embraced in their light curriculum.

**Night Terrors or Fears.**—Some children are very liable to startings and terrors during night. They may go to bed seemingly in excellent health, and sleep calmly for a time; but suddenly they will awake in a state of great fear, and cry loudly for either mother or father, or nurse, or friend. The countenance presents a picture of extreme terror, and the child is in a tremor of agitation. It may be a little time before he recognises those who hasten to his aid, but, when he does so, he will say that he has seen and been frightened by all kinds of uncouth creatures; by ghostly figures, or characters he may have seen during the day, such as cats or dogs, or by idiotic or imbecile creatures whom he may also have seen; or, if not, who may have been conjured up to him by a stupid nurse. When the child regains consciousness, or “comes to himself,” he will cling to his mother or nurse; and the agitation, *after a short time, passing away, he will fall into a*

slumber again, which, usually, is not very refreshing. Night after night these terrors may return, and occasion a good deal of annoyance and distress. We may state that they usually occur from half-an-hour to one hour after the commencement of sleep, and it is rare to have a second attack the same night.

**Causes of Night Terrors or Fears.**—These are not due to any disease of the brain, but are owing to a disordered state of the stomach and bowels, or to irritation of the intestines from the presence of worms. This irritation is reflected on the brain, and thus, by interrupting calm and refreshing sleep, leads to wild and frightful dreams and nocturnal fancies; the more so if the brain is very sensitive and impressionable, and if the mind of the child during the day has been vilely and ignorantly operated upon by ghastly recitals on the part of the nurse.

**Treatment.**—Attend well to the state of the stomach and bowels; in fact, to the general health. Get rid of worms, if they exist, by means of the most suitable remedies. Have no nurse that will recite fearful stories or conjure up hobgoblins. Let the sleeping apartment be airy, and have a little light burning in it in winter. Let the child have a companion if possible, or a friend near to assure, and reassure, and cheer. Allow a good deal of running about and romping in the evening before bed-time, but make the supper early and light. No butcher-meat, no eggs, no ham or bacon, no fried potatoes at bed-time. A little milk, corn-flour, or sago, or oatmeal porridge will be most suitable.

**On various kinds of Accidents.**—Children are, as parents well and often sadly know, liable to numerous accidents. They cannot be always tended or guarded, and their activity and buoyancy frequently carry them to the brink of the gravest dangers. They get cut and bruised, and concussed by falling on their head ; and now and then they will have broken bones. They often eat unripe or poisonous fruits, or swallow poisonous medicines lying about or left too accessible by careless people ; or, again, they will swallow cherry-stones and plum-stones, pins, needles, coins, or suck lucifer matches, or other deleterious substances. We have known children have also a craving for articles not inherently hurtful, such as cinders, salt, sand, saw-dust, etc. They will go too near a fire or the gas, and get burnt ; or too near a water, and get drowned ; in short, the dangers to which the unguarded child is exposed are not easily numbered.

**On the Swallowing of Coins, Fruit-stones, Needles, Pins, etc.**—When a child is known or suspected to have swallowed a coin, a needle, a pin, or any hard or sharp substance, the best method of treatment is to give plenty of time for the article to pass through the bowels. Parents and nurses often—nay, usually—give a dose of purgative medicine in order to hasten the evacuation of the thing, whatever it may be. This is a mistake, or, as we say, bad practice. By stimulating the action of the bowels thus, you may cause the foreign body, that is, the article swallowed, to injure the bowels, *instead of promoting its expulsion.* Safety lies in let-

ting it creep its slow journey, so to speak, through the intestines. It is proper and useful to give a pulpy kind of food, such as sago or arrow-root, or corn-flour, or porridge. This ought always to be attended to, purgatives being excluded. Coins as large as a penny piece have passed safely through the intestinal canal without causing much inconvenience or pain. On the other hand, inflammation, with a fatal termination, has resulted. It is not long since we saw a case where a cherry-stone killed a youth, but doubtless many children have swallowed and passed them with the utmost impunity. Pins and needles have been known to lodge about the bowels for a long time without causing suffering or danger, and ultimately to be evacuated. Let it be borne in mind, then, that when an indigestible substance is swallowed, not to force on its expulsion. Safety, we repeat, lies in a slow and gradual evacuation. As before said, pins and needles have remained in the bowels many months without doing any harm.

**The Ears.** — Children sometimes put peas, beans, beads, etc., into their ears, and thus occasion trouble and pain. Syringing gently may lead to the expulsion of the article, but generally it has to be extracted by means of a fine pair of forceps. Inflammation of the ear and deafness have sometimes resulted from the presence of such things. In the case of the presence of insects, such as the earwig, the treatment is much the same. Let the ear be well and carefully syringed. Some recommend in those cases where a hard substance has got into the ear, the turning of the child on the



side—the affected ear being down. The opposite side is then to be well boxed, and it is said that the intruder will thus be expelled. We are doubtful of this, and see no reason for discarding injection and the use of the forceps in such cases.

**Wounds, Bruises, etc.**—When these are extensive, they require the skill of the surgeon, but simple wounds may be attended to in his absence. If a cut is not very deep or extensive, there is nothing better than immediately tying it up with a rag or bit of lint. It will usually heal without trouble. If it does not, but, on the contrary, begins to throb, the bandage must be undone, and the part poulticed. If an artery be cut, which is known by the red-coloured blood spouting quickly and profusely, a surgeon must be got to tie it, but, ere he arrive, much blood may be saved by binding the part up very firmly with a bandage, below which, and right over the spot, is placed a pad. Wounds of any great length generally require the edges to be kept firmly together by means of strips of plaster. If they happen on a part, where, by the action of the muscles, they are made to gape, they will require to be stitched. If on the face, this should be done by a deft hand, in order to avoid disfigurement as far as practicable. The same is the case with the ear. If a vein of any size is cut, there is a good deal of bleeding of dark blood, but this may be checked until the doctor arrives by simply pressing and holding the finger on the opening of the vein. Bruises require fomentations. A very good lotion is made by mixing a *drachm* of sugar of lead in a quart bottle of warm water.

Another is made by mixing three drachms of muriate of ammonia in a quart of warm water, along with a wine glassful of vinegar. If the bruise be in the form of a *black eye*, the application every few hours of a little "Solomon's seal," as it is termed, will be the best remedy. If this cannot be had from the chemist, the following will answer well:—Sugar of lead, ten grains; tincture of arnica, one ounce; water, one ordinary pint bottleful. This should be kept constantly applied by means of linen or lint. If a few leeches can be had quickly, these may be applied; if there has been much delay, they are of little use.

**Fractures of the Bones (broken bones)** are always cases for the surgeon. Children are not so liable to these, their bones being softer and more pliable. If there is to be much delay in procuring the doctor, the part may be bandaged up until he arrives.

**Head Injuries.**—We have known a great many children who were allowed by young and thoughtless nurses to fall on their head, some of the cases proving fatal. When a child is allowed to fall with force, the brain is stunned, and we have what is called concussion. This may be very serious, although no outward and visible mark or wound is seen or exists. The nurse will say, and flatter herself, that nothing is wrong, because, forsooth! no wound or bruise is to be observed. But let us say emphatically that serious and fatal injury has been done by a fall on the head which produced no external mark. When concussion exists, of course a doctor should be sent for, but we may indicate some of

the symptoms of it, and give directions which may prove of service, before he arrives. As regards the symptoms, we find that the child is rendered insensible ; his breathing is difficult ; the pulse is irregular, and the extremities are cold. The child has also a pallid appearance. These symptoms may by-and-by pass off, and the patient completely recover from the stun ; but, on the other hand, inflammation of the brain may ensue, and terminate in death. The favourable signs are when the child regains consciousness, the pallor of the face passing away, and the extremities getting warm. It is also favourable if the patient happens to vomit once or so, but if the sickness continue long, it forebodes evil.

**Treatment before arrival of Doctor.**—Let the child be kept quiet, and place a warm bottle to the feet. Sprinkle some cold water on the brow, and let him be placed in an airy apartment. Avoid leeching or bleeding, at least during the period of unconsciousness and in the absence of the medical man. Avoid also the use of stimulants. Nurses noticing the faintness are very apt to resort to them ; see that this is forbidden.

**Other Injuries.**—Children may fall and injure other parts, such as the spine, and yet no mark or discoloration be noticed. Attention is called to such by their crying. If a parent cannot find out the part injured, it is proper to send for the surgeon.

**Burns and Scalds.**—These are unfortunately very common in families, many children being sacrificed, or permanently injured and disfigured. A burn is a sore

caused by a heated solid article or substance ; while a scald is that produced by hot fluids. Both usually cause intense pain, preventing the child from resting or sleeping, and, not seldom so, wearing him out and exhausting him as to entail a fatal issue. It is most distressing to hear the cries and moans of a child extensively burned or scalded. Scalds are usually more extensive than burns, the fluid, such as hot water, hot tea or coffee, spreading greatly ; but burns are more usually deep and severe. The lightest and most readily curable scalds and burns are those that go no deeper than the skin. The gravest are those where the parts underneath the skin, such as the muscles, etc., are also involved, and even destroyed. Some of the most dreadful and fatal burns have been caused by children's clothes catching the fire ; but very hot coffee, tea, broth, and particularly boiling water, have all produced their victims. Children have been suddenly killed by drinking boiling water out of a kettle.

**Treatment of Burns.**—Slight burns may be treated without the aid of the surgeon. If the skin, for instance, is only inflamed and not broken, apply cold water cloths at once, and keep them on for about fifteen minutes. Procure then some carron oil—that is, equal parts of linseed or olive oil, and lime water, and besmear the injured part well with it. After this, cover up with cotton wool. Flour or sulphur may be applied in the absence of the oil. Lard and simple dressing ointment are also useful, and are often at hand. *Should the fluid in the blisters be let out ?* Make small punctures,

but do not cut away the skin, or cuticle, as we should call it. When burns are so deep as to affect the muscles, etc., to cause ulceration and destruction of parts, the doctor ought to be called in. A variety of measures may have to be adopted, for many months may elapse ere the parts are healed.

**Caution.**—Children should not be allowed to play with lucifer matches. They should not be left a minute alone in the nursery unless there be a proper fire-screen. If they are in the habit of going near the fire, teach them the danger of it, by holding one hand pretty near the fire, etc. We would not go the length of recommending them to be treated to a touch of the actual element, for that would be cruel. An excellent preparation we must not omit to notice is Field's oxoteryne, to which we have elsewhere called attention.

**On the Accidental Swallowing of various kinds of Poisons.**—Many very distressing cases of fatal poisoning have occurred from time to time, owing to the thoughtless exposure, within easy reach of children, of poisonous medicines, such as laudanum, morphia, vitriol, strong hartshorn and oil, sugar of lead, oxalic acid, and lotions and liniments of different kinds. Many families are in the habit of keeping some of these articles, and it behoves them to see that they are placed beyond the reach of the younger members of the family ; for children are very curious and prying, as we all know, and are tempted to try a taste of most things they can lay their hands on. But not only should such strong and deadly things be kept out of reach, but

parents and nurses when they administer any medicine, should make certain that they are giving the right thing, by examining the label on the bottle and by tasting or smelling the physic. Most terrible and fatal accidents have occurred through neglecting these precautions. Vitriol has been given instead of castor oil, producing fearful agony and a horrible death; and croton oil and creosote have likewise been given instead of castor oil, causing extreme pain and shocking death. These four articles, we may remark, closely resemble each other in colour and consistence, and thus are the more liable to be mistaken the one for the other. We have known parents so thoughtless and reckless as to commit these sad mistakes. We remember well one who gave creosote, a drug with a strong peculiar odour; and yet it was down her infant's throat before, by the smell of the bottle, she discovered her fatal blunder. We can scarcely conceive of a mother in a more dreadful position than this—being the cause, through carelessness, of her infant's death. The memory of it will haunt her acutely for ever. We need not enlarge too much, but may add that oxalic acid, a deadly poison, and one often kept for cleaning purposes in a house, has often been given instead of salts, which it very much resembles; and saltpetre has been given instead of cream of tartar. Children, we may add, often get poisoned by eating unripe fruits, bad confections, laburnum seeds, and other vegetable poisons.

**Treatment of Poisoning.**—In the absence of a medical man, who ought always to be sent for when a

child has swallowed poison, there are various means and measures that may be adopted, and sometimes with benefit. The first thing to do when a child is known to have swallowed any poisonous article, is to try and secure free vomiting. There is nothing better for this purpose than mustard (which is usually at hand) mixed with lukewarm water, half a teaspoonful to a wine-glassful of water. The child should be made to swallow it quickly ; otherwise it may refuse it. The mustard usually excites vomiting in a short time, without depressing or weakening the patient, as does ipecacuanha or antimony. In the possible absence of mustard in the house, a strong solution of table salt will answer.

*Treatment of particular kinds of Poisons.*—There are various poisons that require special treatment, and which we must specify. To begin with : corrosive acids, such as vitriol, or muriatic acid, or nitric acid, we have scarcely any chance of counteracting their dreadful effects by means of antidotes. They burn, corrode, and destroy so quickly, as to defy remedial measures. A drink of barley water, or flour and water, with a little baking soda (bi-carbonate of soda) in it, may be tried ; but ten to one the poor thing's mouth and throat will have been so much injured as to render it utterly incapable of swallowing. These mineral acids, like boiling water, are almost certain to cause death.

**Poisoning by Laudanum, etc.**—When a child gets an over-dose of laudanum, or morphia, or any

soothing draught, or sleeping potion, what is to be done? Give an emetic or vomit at once, such as mustard and warm water, if not too young to drink it; but if so, give a teaspoonful of ipecacuanha wine, following it up with warm water in abundance. If neither of these is at hand, give table salt and warm water. The stomach-pump may be required. To rouse the little one from the stupor, dash cold water on the face and other parts of the body, slap it on the hips, the palms of the hands, and the soles of the feet. Put a large mustard poultice over the abdomen. Shake it well, so long as the stupor lasts.

**Oxalic Acid.**—In this case give flour and water, chalk, or lime water, or magnesia.

**Lucifer Matches.**—Children too often have access to these, and suck them to a poisonous extent. Give an emetic at once, then the white of egg beat up with chalk or magnesia; afterwards free drinks of barley water, or flour and water.

**Laburnum.**—Children often eat the seeds of this tree, thinking that they are the ordinary peas. They usually vomit them, and recover; but if there is great sickness and prostration, we must encourage vomiting, and then stimulate with brandy, etc. Apply warm bottles to the feet, and mustard over the stomach.

**Arsenical Poisoning.**—This can scarcely happen to a child, for surely such a strong poison as arsenic will be kept thoroughly out of reach. Still it may occur that the drug has been given by mistake, and it is well to know in such a case what to do. In the



absence of a doctor, give a mixture of lime water and milk; also white of egg, and flour and water. If vomiting has not occurred, owing to the presence and operation of the poison, it ought to be promoted by mustard or salt, or by a solution of sulphate of zinc—say, fifteen to twenty grains in a teacupful of water. The hydrated sesquioxide of iron is a good antidote, and ought to be administered as speedily as possible.

**Sugar of Lead.**—Sometimes lotions of sugar of lead are lying about, and children drink them. If so, give an emetic at once, then some sulphate of soda in solution, with white of egg, flour, and milk.

**Verdigris.**—This is a kind of excrescence or rust on copper, but it is not now so common, because copper coins are rare. If a child happens to suck verdigris from a coin, pain in the stomach results, with paleness of the countenance and general uneasiness; after which vomiting may take place. The treatment is the giving of plenty of warm water, in which is dissolved a large amount of sugar, and to which is added plenty of milk. The stomach may have to be washed out by means of the stomach-pump.

**Poisoning by Sweetmeats.**—We have often met with children who have been brought to death's door from eating sweetmeats, such as chocolate, etc. It may have been that they ate the luscious stuff too freely; on the other hand, it may have happened that the article contained some inherent bad quality. Many colours are given to sweetmeats, such as rock, etc.; and *often* the colouring material is poisonous—containing

arsenic and other deleterious things. In treating these, we ought first to begin with an emetic, so as to clear out of the bowels the whole irritant material, afterwards winding up with a dose of castor oil. We may state that the symptoms are usually those common to British cholera, and doubtless many cases have been viewed by parents as cholera, which were in reality those of poisoning by coloured sweetmeats. In connection with this subject we may remark on the extreme thoughtlessness and folly of stuffing children with confections. The habit cuts two ways,—both of them bad. In the first place, they destroy the teeth, which are so necessary for the proper mastication of food; and, secondly, too many of them directly produce indigestion. We may rest assured, moreover, that children who are always getting buns, sweetcakes, shortbread, and diverse pastries, soon come to have a distaste for more simple and natural food, and at a time of life when nutritious diet is so essential to their strength and growth.

**Lemonade and other Sweet Drinks.**—When these are too much indulged in by the young they tend to produce flatulence and griping. Adults know this, and put what is called a “cinder” in them (a doubtful practice, and which cannot be resorted to in the case of children). Besides causing wind and gripes, they often induce colic. When this happens there is reason to suspect that some poisonous substance has got into the drink, and usually it is lead. The treatment is mentioned under the head of Sugar of Lead. But here we

begin first with a dose of castor oil, and a few drops of laudanum, according to the age of the child ; remembering that young persons cannot stand very much laudanum.

**Alcoholic Drinks, Beer, etc.**—It ought not to be needful to say that children should not be offered any alcoholic drinks at the table, but in our experience the practice is far from uncommon. We have known some silly parents laughingly and jokingly say that their little "Tommy" was very fond of a "wee drop," and they were in the habit of gratifying the child, thus begetting a craving for it in infancy. This can only be characterised as a monstrous crime. If a craving unfortunately does arise in after years, let parents be sure at least that they have had clean hands. Some are in the habit of giving whisky for worms. Now this is not good practice, because we have more efficient remedies, and there is the risk of a taste being created. It is also very common to administer sulphur in whisky—a practice equally reprehensible. Beer is not required by children, and when given causes flatulence and gripes. Some children have been poisoned by swallowing whisky and other alcoholic drinks by mistake. *If a child has been found to have taken a poisonous dose, as indicated by a staggering gait, and afterwards deep stupor, what is to be done?* We must endeavour by a mustard emetic to empty the stomach. Water must be showered on the face and injected into the ears, and, if necessary, galvanism is to be employed. If able to swallow, sal volatile in water should be given.

**Tobacco Smoking and Chewing.**—Strange as it may seem there have been cases of poisoning in young children by the use of tobacco. It is a strong poison to the young. *What is to be done when we find a boy has, either from chewing, smoking, or accidentally swallowing, received a poisonous quantity of tobacco?* When we find a young person in this state, as indicated by vomiting, great nausea, and sickness, and afterwards stupor, we are to encourage vomiting, use cold water douches, and give freely of stimulants. Cold air should be fanned on the face, and galvanism applied if necessary.

**Emerald-Green, Brunswick-Green, or Vienna-Green.**—We must say a few words about this poison, to which children are in many ways so much exposed. It is a preparation of arsenic and copper, and is extensively employed as a colour in dresses, in artificial flowers, in toys and confections, in paper for the walls of dwellings, and other purposes, and as a paint also for walls, etc. It is very loosely applied in many cases, such as in wall-paper; and is thus easily rubbed off, in which case it seriously taints the air of the apartment. *No nursery should ever contain it.* In dresses, too, the poisonous colour is not well fixed, and therefore it cannot fail to do more or less harm. It would be better to dispense with a bright colour like this than undergo a process of chronic poisoning. Then, as regards children, they are always putting their fingers into their mouth; and think of them doing this after drawing their hands over the green

paper on the wall! They are keen to chew all sorts of things and substances, and imagine them tearing off a bit of green paper, and chewing or swallowing it! Bad results are certain to follow. Under Arsenic will be found the appropriate antidotal treatment.

**Yew Leaves.**—Children have been poisoned by eating these, though only to a moderate extent. The symptoms are, pallor of the countenance, sickness, faintness, weak pulse, convulsions, etc. The treatment consists in getting rid of the poison by vomiting, and then supporting the system by means of the best stimulants; at the same time keeping up the warmth of the extremities by artificial heat.

**Mushrooms.**—Many children have suffered severely from eating poisonous mushrooms. The symptoms of poisoning are—nausea, vomiting, purging, giddiness, squinting, and delirium. Convulsions sometimes happen. The treatment consists in promoting the expulsion of the poison by vomiting and purging, and keeping up the strength by stimulants, such as beef-tea, etc.

**Bitter Almonds.**—This article, or rather the essential oil of it, is frequently employed for flavouring confections and other sweetmeats, and when it is not freed by a chemical process from the strong poison which it contains, viz., prussic acid, it is exceedingly dangerous to use any article that has been flavoured with it. The symptoms of poisoning with bitter almonds (and these have arisen from the use of even a single almond) are, sickness, vomiting, and diarrhoea; sometimes a state

like intoxication, with delirium at intervals; and not infrequently the appearance of nettle-rash. Death has often resulted. The treatment consists in giving sal volatile inwardly, and showering cold water profusely on the body.

**Fish, Meat, etc.**—Every now and then we read in the newspapers of children being poisoned by eating fish or meat when in a diseased or semi-putrid condition. Any portion of a fish may be poisonous at times, but especially the roe. Shell-fish, such as oysters, crabs, and mussels, have frequently proved poisonous to the young. Mussels are supposed to derive their poisonous properties from feeding on the spawn of the star-fish, which is extremely irritating even when applied to one's skin. They also derive their irritant qualities from copper which some jetties at the sea-side are lined with, and to which the mussels cling. Pork is a form of meat that should be particularly sound before it is given to children. The best is of a pale-red tint. When pork is of a dark colour it is very bad, and unfit for food. Worms may then be observed in it when examined with the aid of a magnifying glass. Sausages decompose readily, as may be known by their nasty odour and their soft condition; and thus when partaken of, cause the symptoms of poisoning. The symptoms in poisoning with shell-fish and bad meat vary considerably. There is often pain in the stomach and bowels, then vomiting (which is a good thing); but often the child becomes suddenly prostrated, there being alarming depression of the ner-

vous system, delirium, then unconsciousness, followed in some cases by death within twenty-four hours. So bad and rapid are the symptoms and end, that such cases have been supposed to be those of suppressed scarlet fever, until it was discovered afterwards that the child had been eating poisonous stuff. The treatment in such cases should be skilled and prompt. Promote vomiting, give drinks of barley tea, or isinglass; stimulate with brandy and sal volatile; put a mustard poultice over the stomach; surround the child with hot bottles, and rub his spine.

**Fool's Parsley.**—This has been eaten by children, who have mistaken it for that used in cookery. It causes sickness, severe pain in the stomach and bowels, vomiting, giddiness, etc. The treatment is the same as in that of the poisons previously named.

**Drowning.**—Children frequently stray from home and tumble into a pond or river, and get drowned, or nearly so. They often fall into a pool of water, or a tub of water, beside or within their own dwelling. *What is the treatment in cases where the child has not been too long in the water; where there is a prospect, however faint, of resuscitating and recovering it?* Place the child in hot blankets with the face at first downwards, so as to allow the water to escape from the mouth and air passages; draw the tongue forwards with a pair of forceps, or with two fingers, and then turn the child round on the back, the head being well elevated. The body should be steadily rubbed for a considerable time with a little whisky, or turpentine

and oil, and the arms should be raised from the sides upwards above the head, and in a second or two lowered again. This movement should be continued for a considerable time, and also the rubbing down the spine and over the chest and abdomen. The alternate uplifting and lowering of the arms is called the Sylvester method. It is of great importance, also, to clear away from the nostrils and mouth any mucus or extraneous matter from these passages. This admits more readily of the entrance of air, which is the main thing in such cases. The prone position lying with the face downwards, at the same time seeing that the air passages are free, is that of Marshall Hall. The tongue, in such cases, falls forward, as a rule, and does not require pulling forward. The prone position, then, is the best, as getting rid more easily of the water that may have been swallowed, or found its way into the air passages. But during this prone position we are not to be idle; we must apply heat and friction most perseveringly until the breathing, at first gasping and irregular, becomes restored to its normal condition. A little sal volatile, and a drop of brandy and water, or wine negus, should be given when proper breathing and swallowing are restored.

**Rules and Cautions for the Administration and Application of Medicines; Opium, Antimony, Ipecacuanha, Mercury, Digitalis, Blisters, and Bleeding.**—*Opium.*—We have a great many preparations containing opium, such as laudanum, paregoric elixir, Dover's powder, syrup of poppies, and



chalk and opium. Morphia, too, is prepared from opium, and is a very powerful narcotic medicine, although the solution of it is made about equal in strength to that of laudanum. Now, all of these preparations should be given with the greatest caution in the case of children. Many an infant has lost its life owing to their incautious use. It has been said that three-fourths of all the deaths from poisoning by opium (or by some preparation of it, such as various quack soothing syrups) occur among children under five years of age. A child six months old, or under, should not get more than a single drop of laudanum; but if severe belly pain continue (for which this drug is usually given), the dose may be repeated in two hours with safety. It is better to administer it in this cautious way, because three or four drops given at once may prove fatal to an infant. Laudanum may be rubbed into the skin in larger quantities; but when injected into the bowel (enema), we have to be very careful, it being nearly as poisonous in this way as by the mouth.

*Antimony.*—Antimonial wine is very often given to children for coughs and various diseases of the lungs. Now, antimony is a drug that, like laudanum, should be given with great discrimination and care, because it is well known that it greatly depresses and weakens the heart's action and the circulation. It is given generally to promote vomiting, and to loosen and help up the pus and mucus from the lungs; but many children do not vomit after getting it, and sink from depression of the action of the heart. It is a medi-

cine, then, which must be given with much caution, the effects of one or two doses being properly watched. We have seen numerous children at death's door, owing to its too oft-repeated employment, and many have been poisoned by it.

*Ipecacuanha Wine.*—Like antimony or antimonial wine, we believe there are few families in the kingdom where ipecacuanha wine is wanting. It is safer to use than antimony; yet in our experience, and that of others, much mischief has been done by the unskilled employment of it. Mothers and nurses, when children have a cold or a cough (even a trifling one), keep dosing them with the drug hour after hour, until they are nearly, if not altogether, poisoned by it. Some children are only dreadfully sickened and depressed by it, vomiting not taking place. Vomiting is the object sought, in bronchitis, for example; and it is better to give a good dose—a teaspoonful, say, for a child from six to nine months old, and follow it up with a warm drink (the breast or the bottle), than frequent smaller doses, if we see that these produce only nausea and depression without emesis or vomiting.

*Mercury.*—This potent medicine (or, at least, the various preparations of it, such as calomel, etc.) is often given to children with the grossest recklessness. A parent or nurse will say, when a child's stomach or bowels are disordered, "Let's send to the chemist, and get a calomel powder." The infant gets it, and is often at death's door, if not poisoned, in consequence. As in the case of antimony, calomel has killed by irri-

tating the bowels and depressing the circulation ; and in a slower way, by inducing gangrene or mortification of the mouth—a grave disease, which we treat of in another part of this book. We warn parents and nurses against the employment of this medicine without due advice. There are safer medicines, such as rhubarb, castor-oil, manna, scammony, etc., which they can employ with benefit and without danger.

*Digitalis, or Foxglove.*—This is a medicine which we believe is rarely given, unless under the direction of the doctor ; but in case any non-professional persons may happen to employ it, we shall give a hint regarding the dangers attending it. It is what is termed a cumulative medicine ; that is to say (like chloral), it does not pass quickly out of, but accumulates in the system ; and although a good many doses may be given safely, a time comes when the drug has gathered in the body to a poisonous extent, and death may suddenly take place.

*Blisters.*—These require to be used cautiously in the young. They should only be applied under medical advice. Children are blistered much sooner than adults ; and if the blister be kept too long on, ulceration may result ; nay, worse, in some cases mortification has ensued, ending in death. Blistering paper alone should be used.

*Poultices, or Cataplasms.*—A word of caution is needed under this head. We have seen hot flannel, bran, linseed-meal, porridge, mustard, etc., so recklessly applied as to produce blistering to an alarming and

dangerous extent in children. When mustard is applied to infants, it ought to be in combination with oatmeal or linseed-meal, and the nurse should examine the part occasionally, to see that no more than the proper amount of redness is produced. When hot bran, or oatmeal, or salt is applied, it ought first to be tested on the nurse's cheek.

*Bleeding.*—This should be done with the utmost caution in the young. It is rare to bleed children under four years of age from the arm. Leeches are usually employed, and these should only be used under the advice and superintendence of a medical man. Under nurses and others, not a few children have bled to death. Leeches should be applied, if possible, in daylight, and on those parts of the body where the bleeding can be most readily restrained.

*The Stye.*—This is a hard, inflamed swelling of the eyelid, arising from cold, a disordered stomach, and the strumous taint. It is at first painful; there is a feeling as if not one, but many moles were on the eye, and afterwards there is a good deal of itching. When a stye appears, a dose of laxative medicine should be given at once, and a poultice of bread and water applied. A slice of raw meat is an excellent poultice also; and when the hardness is very persistent, a roasted fig may be applied. Bathing the part frequently with warm water helps to further the cure.

*Swellings of the Glands of the Neck, "Runnings," etc.*—Swellings of the glands most commonly occur in scrofulous families, but they may arise from

cold, or from teething, or from bad or decayed teeth. They often disfigure a young person much when the glands of the neck are affected. Now, whenever a gland of the neck is seen to swell, get hard, and become prominent, the advice of the family physician should be sought. Many old women, and young ones, too, at once recommend and practise rubbing; but this method of treatment in many cases simply—nay, seriously—rouses the gland to inflammation, and then comes suppuration or abscess. The matter formed must find its way out, or must be let out by an incision, leaving the child permanently disfigured. If not opened, it may work its way out, it is true; but this may turn out to be a tardy process; and a most unsatisfactory one in this respect, that the matter may not find vent, or an opening, at one place, which is bad enough, but at numerous places, which is much worse. Great disfigurement is thus produced.

**How to Prevent and to Treat Glandular Swellings.**—Keep up the general health by pure air, nourishing food, and give maltine, with cod-liver oil. Where these disagree, which is seldom, give nitricine, this being one of the lightest and most attractive and nutritious preparations which the writer knows of. Instead of beginning to rub at once when a swelled gland or a few swelled glands are seen, apply flannel around the neck, after gently besmearing the glands with camphorated oil, or with this oil mixed with ozokerine in equal proportions. See that there are no *bad* decayed teeth in the way; if there be, get them

taken out. Cold should be avoided when there is a swelling of the glands. Warmth—the neck kept warm in particular—and the other treatment pointed out, will help greatly to prevent suppuration, with its ugly accompaniment of running sores.

**Chilblains and Chaps — Frost-bite.**—Chilblain is a very common affection of the skin in winter among children, and particularly among those who have a strumous tendency. It is attended with a good deal of pain, and an intolerable heat and itching. The skin of the hands and feet also frequently crack or chap, and then the pain is excessive.

*What is the best kind of treatment for these ?* In the first place, "prevention being better than cure," we ought to try and ward off the trouble. Children who have a tendency to them should bathe their hands and feet after their usual ablution with cold salt water. If a child's feet be cold, he should not hold them near the fire, but rub them gently with the hand, until they become warm ; and the same with the hands. When the hands or feet of sailors in Arctic seas, or travellers in cold countries, become benumbed with cold or frozen, it is usual to rub the parts with snow. To apply heat leads to mortification. As regards the treatment, when the skin is not broken we have a host of appliances. A mixture of spirits of camphor with Goulard's extract is beneficial. The ordinary camphorated ointment is useful, and that prepared by Calvert of Manchester answers well. There is another preparation, ozokerine, which is of an emollient, soothing,

and healing character. When the skin is broken or chapped, poulticing will be necessary ; afterwards the application of an ointment made with ozokerine, or with spermaceti and fine lard. In frost-bite it is best to rub the parts with snow, avoiding going near a fire for some time.

**Effects of Extreme Heat—Sunstroke.**—Children in Britain are not so liable to suffer from heat as in tropical countries, where *coup de soleil*, or sunstroke, is very frequent. But young persons too much exposed to the direct rays of the sun are apt to suffer from severe headaches, which might lead one to think that inflammation of the brain was threatened. Indeed, this latter has been occasioned by exposure to the sun. If a child be known to have been thus exposed, and complains of headache and twitchings about the face, the head should be plentifully bathed with cold water, and warm bottles applied to the feet. The room should be darkened a little, and noise repressed. If faintness occurs, a few drops of sal volatile should be given. In sunstroke, cold is applied to the head, and gentle friction to the spine.

**Earache.**—This is a very frequent and painful affection in children in cold weather, or during east winds ; it may happen at any season, too, owing to cold draughts of air, or from sitting at an open window, for example. In earache the pain is so acute as to make the child scream, and he generally places his hand on his ear. If the pain is long continued, a doctor should be sent for, to see that inflammation of

the brain or its coverings is not threatened. Inflammation of the ear may, indeed, be the beginning of that of the brain, the one extending to the other. Sometimes a decayed tooth leads to earache, and toothache is combined with it. The pain, always great, is thus intensified, and it is distressing to witness the suffering of the child. There are various ways of treating earache. A good plan is to put a few drops of laudanum into the ear, and apply over it hot bran or salt; or, better still, a poultice of poppy-heads and chamomile flowers, frequently renewed. If matter forms, syringe the ear with warm water gently, and apply warm almond oil, with a few drops of laudanum. Children subject to earache should have their ears well covered in winter and spring.

**Falling down of the lower bowel, or Prolapsus Ani.**—Some children are very liable to this, and it is rather a distressing, and, in some cases, painful affair. The causes are an inherent weakness of the bowel, worms, and the too frequent use of purgative medicines, one or all combined. Some children are naturally very costive, and whether they have got laxative medicine or not, sit too long over their stools. A strong bowel (rectum) bears this well enough, but where it is rather weak, it is likely to come down. The irritation of worms often leads to much straining, and is also a cause. Diarrhoea is another cause of importance. The treatment consists in endeavouring to cure constipation in the mildest fashion, to expel worms also in the simplest manner, and to give tone



to the bowel by the internal use of the wine of iron, and the free external use of cold salt water in summer to the back and seat, and tepid salt water in winter.

*How to return the bowel into its proper place.*—The child should be placed in bed or couch, with his face downwards, and his hips raised somewhat. Then the bowel is pressed gently upon with one or more fingers, besmeared with lard or olive oil, and free from protruding or long finger nails. If done in good time, the bowel goes easily into its proper place. If much delay occurs, and this can only happen under grossly careless hands, there may be a good deal of difficulty experienced in replacing the bowel; the consequence being inflammation, nay, even mortification. When it is replaced, the fundament should be well bathed with salt water, and then the child should rest on the couch for half-an-hour, lying on his side. In persistent cases a little gall ointment, or an ointment of gallic acid and lard, should be used on the finger when pushing the bowel up.

**Costiveness or Constipation.**—We have in different parts of the book thrown out hints regarding the treatment of this, but this seems a fit place for saying something more, it being one of the causes of prolapse or protrusion of the bowel. Well, we should not always be rushing to laxatives or purgatives, but rather try what diet can effect, or the introduction of a suppository into the lower bowel. This may consist of a bit of soap, shaped like a pastile. Give gruel with treacle, roasted apples, stewed prunes, broths, etc., that *is*, for children above the suckling period. A child

two or three years old may suck with benefit also a little good Wiltshire bacon. Olive oil, honey, butter, butter milk, figs, etc., are also nutrient, and laxative. Another good plan is to rub the belly daily with olive oil; and it cannot be too often repeated that plenty of walking exercise promotes the action of the bowels. When olive oil fails, a castor oil cloth over the abdomen may do more good.

**Ozæna.**—This is a disease of the nose or nostrils, much more severe than snuffles or a stopping or stuffing arising from cold. There is a very offensive discharge from the nostrils, the nursery or bedroom being permeated by the disagreeable odour. A scab gathers and plugs up the nostrils, and when this is picked away, as children will do, it is soon reproduced. Sometimes the bones of the nose are effected, but this does not necessarily happen. The disorder is one connected with the scrofulous constitution. When children pick away at the scab, and scratch their nostrils, their hands should be encased in gloves. An ointment of oxide of zinc and glycerine should be applied every hour or two, and a solution of permanganate of potass no less frequently injected or sniffed up the nostrils. A weak solution of chloride of zinc, or of nitrate of silver has sometimes to be used. It is often a very obstinate affection—one demanding great attention and skill. It is a part of the scrofulous constitution, and the reader is referred to the article *Scrofula* for information regarding constitutional treatment, which is of essential, indeed indispensable, service.

**Leucorrhœa or White Discharge of Infants.**—

There is frequently a white, or even yellowish discharge, from the vulva or private parts of female children, and this alarms the mother greatly. They imagine that their little daughters have been the victims of foul and impure play, but this is generally an entire mistake, the discharge being a result of cold, operating on a scrofulous constitution. The ordinary period when this discharge appears (and really it is a very prevalent ailment) is from two-and-a-half to seven years. The swelling is often great, and blood sometimes comes away. This relieves the swelling, and also the pain. In the case of boys of a scrofulous tendency, we have also slight inflammation of the parts, but with very little discharge, friction of their flannel drawers having occasioned it. Worms, by setting up a deal of irritation and itchiness, also occasion it. The treatment is to bathe well with Calvert's or glycerine soap and water. In the case of the female child, the nurse should thoroughly wash the parts. The parts must be well separated, and the water laved on and showered deep down. In obstinate cases a little alum and oak-bark infusion may be required.

**Worms.**—Many children, as well as adults, suffer from worms, aye, and suffer severely. Few under a year old are annoyed by them. Infants are rarely born with them, although born with various other diseases. Worms are exceedingly common, and give rise to much distress.

*The different kinds of Worms.*—There are about five different kinds infesting the human body. There is the thread-worm, or maw-worm, or ascarides. It is a

little white thing like a bit of cotton thread. This worm is most common in the young, and usually dwells in the lowest part of the bowel, or rectum or seat. *Secondly*, there is the round worm, from six to twelve inches long. This worm infests the small bowel chiefly, and sometimes the stomach. *Thirdly*, there is the tape-worm. This is a worm which exists throughout the whole bowels, and is usually of great length and ugly appearance. It is rare in children. The others present some differences from the foregoing, which it is scarcely necessary to describe.

**Causes of Worms.**—The causes of worms are various. The small white thread-worm usually attacks children of a weak, or strumous, or scrofulous constitution. They are thus frequently hereditary. Children have them because their parents, or grand-parents, or great grand-parents had them. More direct causes may be the eating of unripe fruit, or badly cooked vegetables, or the want of a due amount of salt in the food. Other kinds are due to eating badly cooked ham or pork. It must be borne in mind, however, that many families will be the prey of worms despite every care alike in cooking and feeding.

**The Symptoms of Worms.**—Some medical men are in the habit of underrating the importance of worms in the intestines—that is, they do not believe that they give much uneasiness or trouble. Never in our estimation was there a greater mistake. Worms do not exist in the bowel without causing trouble, discomfort, and at times pain. The small thread worm usually

causes an intolerable itchiness about the seat. Children loose their sleep owing to it, and they grind their teeth during the night. They look pale and flabby, and the appetite is very variable. At times they have a ravenous as well as a capricious appetite; at other times they loathe food. During the day, and during the night, they moan, and have, as before said, disturbed slumber. Other symptoms are, itching and picking of the nose, colicky pains, swollen state of the belly, sickness and vomiting. Worms that infest the upper bowel occasionally enter the stomach, and are vomited up. The tape-worm produces the most serious symptoms in children, causing general bad health. The patient is pale, feeble, languid, and emaciated; and at times the irritation caused by its presence induces convulsions. More serious, but rare, results of the presence of worms in the bowels, are ulceration and bleeding, abscess and inflammation. Worms have been known to find their way into the liver, and even into the tubes of the lungs, causing cough and difficult breathing. But a cough, we may remark, is occasioned even by their presence in the bowels.

**Treatment.**—For the small worms children should be treated chiefly by tonic medicines, by an occasional purgative, and by injections of infusion of quassia. Lime water and milk should be frequently given. Strong worm medicines, which often contain calomel, ought to be avoided, as they weaken the bowel, and thus render it a more easy prey to their re-production. We have known children dosed so extensively as to be

much reduced in health; in fact, a weak condition of the stomach and bowels, with indigestion, has been induced. For children a good remedy is *santonine*. It should not be pushed too far, however. A dose every second night, until three have been taken, will do; to be followed by *senna* or *castor oil*. For adults the best remedy in *tape-worm* is the extract of *male shield-fern*.

#### **Incontinence of Urine, Wetting the Bed, etc.**

—Some young persons, indeed very many, suffer from this distressing ailment. The want of control over the water, the inability to contain or retain it for any length of time depends on different causes, which we shall note. Worms situated in the rectum, or lower part of the bowel, are a frequent source and cause of it. Indeed, more than one half of all the cases are due to this alone. Some irritation of the lower bowel especially, arising from indigestion, and consequent flatulence, the wind accumulating and pressing against the bladder, also induces incontinence. An over-acrid or acid condition of the urine accounts for some cases. Children are most liable to it during the night (hence the common expression "wetting the bed"), but many wet their clothes during the day, the desire coming on so suddenly. Parents and others are apt to be severe on children who thus wet their bed or their clothing; but in the great majority of children, it is a case for sympathy, for kindly and skilful treatment, and not for moral or physical chastisement. Let the medical man find out the cause, and treat it with all earnestness and due skill.

If it be worms, get them expelled. If it be irritation of the bowels, get it cured if possible. If unhealthy urine, see that this be remedied. Don't thrash the child too hurriedly, or in anger, because he happens to wet some of your sheets; give the little fellow fair play: very often, to tell the truth, the fault or failing is as much due to the child's father or grandfather as to himself, if not more so.

**Treatment.**—Now, as regards the treatment, we have partly indicated that, but we may enter a little more into detail. See that the child does not get a late supper, and let that supper not consist of much fluid food or slops. A little bread and butter, with a small cupful of skim milk about seven o'clock will be sufficient, or some arrow-root. Sponge the youth with cold salt water down the spine daily; yea, in warm weather shower the water on. The medicines given are steel drops and the yellow syrup of iron, nux vomica, and belladonna. These latter should only be used under the supervision of the family physician. The position of the child in bed is important. He should not be allowed to lie long on his back, but be shifted from side to side. He should be roused twice during night in order to pass his water voluntarily; and we may add that he should be made to pass it the last thing before going to bed. Such cases demand and deserve pity, not passion; to conclude, they come all right in time.

**Ringworm.**—This is a contagious skin disease usually affecting the head, or rather scalp, and occurring in

round or oval patches. It is very destructive to the hair, spreading often pretty rapidly, and causing at least a temporary baldness or alopecia. It must not be confounded with herpes, a skin affection somewhat resembling it, but which we shall describe separately. Ringworm is very contagious; it attacks various members of a family, and is largely propagated where children congregate, as in schools. When it appears, the child should be isolated as much as possible, and, of course, withdrawn from school.

*How does Ringworm begin?*—It begins with a small ring of discoloration, less than the size of a threepenny piece. This little circle increases in size daily, until it becomes as large as a florin. There is no redness or inflammation of the part; but, on the ring, as it were, there are dry scales, which fall off, and are reproduced. At first the part has a tingling feeling, afterwards it becomes itchy. If a hair is attempted to be pulled out by the root, it generally breaks in the middle. The hairs have also a bleached-like appearance. There is no danger connected with the disease, only it is troublesome and difficult to cure.

**Treatment.**—It is of paramount importance to treat this nasty disease at the earliest period. The system, if weak, ought at once to be attended to by the use of tonics, such as syrup of iodide of iron, and in some cases cod-liver oil. Various lotions and ointments have been recommended, and which we shall name. A common one is writing ink, which seems to do some good. A better application, however, is the following



ointment :—Muriate of ammonia, finely powdered, one drachm ; sulphur ointment, half an ounce ; mild citrine ointment, half an ounce ; mix. This is to be rubbed into the affected part thrice daily. The part should be previously washed or fomented with warm vinegar. If not convenient to procure the foregoing, as in some remote parts, the red precipitate ointment will do, or in the absence of this, a little saltpetre and salt butter may be rubbed in.

**Herpes.**—There are several varieties under this head, but the one mistaken for ringworm is the herpes circinatus, or ring herpes, because it appears in circles or rings. We shall, therefore, describe it first. It begins as a circular red patch on the skin, about the size of a shilling or a florin. The redness is less bright or vivid in the centre of the patch than in the other parts. Very soon after this redness appears, vesicles arise. These are small globular elevations of the skin, of a clear colour at first, but soon become muddy and dry up into thin scales. These scales fall off in from seven to ten days, leaving the part below still red for a time. Now, this disease often disappears under careful treatment in ten days or so (which true ringworm never does), but the provoking thing is, that in many cases, as one ring is cured, another is formed, and another again. The most common localities where it appears are the arms, shoulders, face, and neck, not on the head. There is a smarting pain, then itching. It is not a contagious eruption.

**Treatment.**—Attend to the general health, and to *the state* of the bowels. Give a little sulphur and

magnesia, and apply the following ointment twice a-day to the part affected :—Ointment of benzoate of zinc, half an ounce ; camphorated ointment, half an ounce ; mix.

**Herpes Zoster, or Shingles.**—This form sometimes occurs in children, but it is rare. It begins with a sharp burning pain, which often puzzles the doctor for a day or two. At length the eruption appears, and ends all doubt. This rash consists of bright-red patches, each separated from the other by a little space. It has the singular peculiarity, moreover, that it forms a half zone, or half circle, from the middle part of the body in front to the middle part behind. Whichever half of the body is attacked (and it may seize one or other side), the other side is exempt. So, it forms a half circle of red patches, separated, as before said, at a greater or less distance from each other. These patches vary in size from that of a threepenny piece to a sixpence, or larger ; and in the course of from four to eight days, begin to shrivel and dry up into dark-brown scabs, which fall off from about the twelfth to the sixteenth day. For some little time longer a faint redness remains where the crusts were. The most common part affected is the chest, but it may seize upon parts higher or lower.

*Symptoms.*—Acute, burning pain, and feverishness, lasting even for days after the eruption comes out.

**Treatment.**—Some rhubarb daily for three days after the appearance of the eruption, and the following lotion—tepid—applied to the effected parts :—Sugar of lead, thirty grains ; powder of opium, five grains ; water, one imperial pint ; mix.

**Eczema, Milk-crust, Tooth-crust, Running Scall.**—This is a skin affection very common among children at the teething period. It is marked by an inflamed skin, on which pimples containing a clear fluid (or vesicles, as they are called) appear. This fluid discharges, and ugly-looking crusts form. These are of a yellowish or greenish colour, and as the fluid beneath, or the scratching of the infant displaces them, they are renewed again. There is often a peculiar odour exhaled from the affected skin. The most common part or site of the disease is the forehead, head, and ears. On the head the crusts or scabs are often so extensive as to cover it like a cap. Over the brow it is often also so thickly planted as to cause great disfigurement, the face of an otherwise beautiful child being rendered repulsive. The disease is an extremely distressing one, causing a deal of irritation to the system, and by the alternate smarting pain and itching, preventing the child from obtaining proper rest and sleep. The pain is usually greatest where the skin becomes extensively chapped or cracked. There is great difference in different cases as regards the time the disease lasts. It is rarely cured in a month; and it often exists for many months, in fact, until the first set of teeth has been completed. When it does pass away the skin becomes again quite fresh and pure; no ugly traces are left behind; the beautiful complexion and smiling face emerge again, as it were, from a sombre and repulsive screen.

*Causes.*—Teething operating on a peculiar constitu-

tion, such as a scrofulous one, or one where the blood has been contaminated hereditarily, or otherwise. Then, injudicious feeding—a too stimulating diet—will favour its production.

**Treatment.**—It is not at all safe to try by external applications to dry up and heal this eruption hurriedly. Much harm has often been done in this way. Water of the head and fatal convulsions have been the result. The eruption must be viewed as a safety-valve, so to speak, to a system disordered or contaminated for the time at least. But though we are not to hurry the cure, we may adopt several means which we shall mention with the view of rendering it less irritating to the child. In the first place, it is always safe to endeavour to alter the constitution of the patient by giving, for example, cod-liver oil, or the yellow syrup of iron (the iodide), or the red syrup—that is, the “chemical food,” twice or thrice daily. Then, it is safe to wash the parts occasionally with a little fine soap and tepid water, besmearing afterwards a little olive oil on the brow, or face, or ears. Anything stronger should not be employed, as a rule. Trust to inward remedies and time. Gloves have frequently to be placed and tied on the child’s hands to prevent scratching, for he frequently tears until the parts bleed, and thus retards the cure.

**Impetigo.**—This is a disease much the same as the foregoing, and gets the names also of scall, milk-crust, crusted-tetter, and porrigo when seated on the head. The pustules are larger, and dry up into coarser and darker

scabs. The causes and treatment are the same as in eczema.

**Favus or Tinea.**—This is a dirty eruption of the scalp of a contagious nature. It is attended with a peculiar odour, like the smell of a cat's urine. It begins with yellow coloured pustules, not much raised above the skin, and there is always a hair to be seen penetrating them. Soon the pustule gets hardened into a crust, which is cup-shaped. The disease is pretty common in large manufacturing towns, and especially where the people are confined to close dens, and are of dirty habits. When not properly treated the disease may continue for years, and the hair is usually destroyed. Some little soft, downy hairs may ultimately appear, but that is all, unless active measures are early employed.

*Treatment.* — Attend well to hygienic conditions. If the wretched patient happens to live in a black, unwholesome hole, get him or her out of it, and into purer air and sunlight. Give the usual tonics, also cod-liver oil, and the syrup of iron. Shave the head and wash it well, and see that the whole skin is properly cleansed. When the head has been shaved and thoroughly washed, the following ointment will complete the cure:—Corrosive sublimate, two grains; creosote, half a drachm; resinous ointment, one ounce; mix; apply twice daily. As regards diet, that must be generous; such as mutton-tea, cream, fresh eggs, etc.

**Scaly Eruptions** happen occasionally among children, and cause a good deal of trouble. The principal

are lepra, psoriasis, pityriasis, and ichthyosis. Attention to the general health, baths, and the application to the parts of olive oil, or simple cerate, or palm oil, are all that is required.

**On the Mental Exercise, or Culture of Children.**—We have referred to the physical exercises which are suitable, and more or less beneficial to the young; but a few lines may not be inappropriate regarding the training of their minds. Children possess a great curiosity; they are always prying into things; always asking questions, and eager for information. This thirst for knowledge should be encouraged, but the supplying of the information should be done with the utmost prudence. They will put questions that cannot, and ought not to be answered; and they will put others, the answering of which will be pleasant and beneficial to them. To give a truthful answer should be the main aim of a parent or nurse. They may be taught to look up early to the stars, and admire them; to the trees and the flowers; the birds of the air, and the beasts of the field; the running river, the gurgling brook. Always cheerfully answer them, and encourage their inquiring spirit. Scold them not for putting questions; if the question be improper, evade it, and divert their attention to something else; if fit and proper, take pains to satisfy their useful curiosity. Remember that their brain is almost a blank, that there is an innate desire to know; and mete out that knowledge with wisdom and discretion. Children need not be sent to school before

they attain the age of five or six years, but they may acquire the alphabet, etc., at home before this time. When they are old enough to read, it is almost superfluous to say that that reading should be strictly good and moral, while also of a cheerful, instructing, and edifying character. It should not consist of fearful recitals, for example, of bloodshed, or murder, or of ghastly or ghostly tales, fitted to make the hair stand on end. From the perusal or hearing of these, children have derived lasting impressions of a painful and baneful character. Such books as *Blue Beard*, the *Tower of London*, etc., are rather too terrific for the very young mind. A judicious use of holy scripture is indispensable. There should be a daily reading of the more suitable texts. The Jews carried caution to excess, for they forbade the reading of Solomon's *Songs* until their children were in fact grown up men and women ; I think, thirty years of age. *Blind-man's buff* and the masquerade may be abused, but on the whole they may be carried on very innocently, we think. The selection of companions is of immense importance, but who in these days can regulate this, unless the child is kept away from school, and educated at home ! This is always an enervating plan, depriving children, as it does, of the bracing influence of emulation. The good is counterbalanced by the evil, we fear. Playfellows should be carefully selected. If they hear profane swearing, or other objectionable language outside, they should not at least hear it at home ; and, of course, be taught the vice, foolishness,

and vulgarity of it. The witnessing of cruelty to animals has a bad effect on the mind of the young. There is, unfortunately, an innate spirit of cruelty in most people—it may be more, it may be less, in different instances, and the sight of torture of animals may intensify this. A child should be taught to be kind to the lower animals ; not to whip a cat, or cane a dog, or tread on a beetle, or put a pin through a living butterfly or housefly. Children are out of doors, as well as in doors, greatly at the mercy of servants, some of whom are coarse and vulgar in their manners, their habits, acts, and conversation. This is a great evil, and can only be avoided by care in the selection of the nurserymaid. Let them be warned, as well as the nurse, not to fill the minds of their youthful charge with silly or nasty tales, or senseless and unbecoming rhymes, or with the apparition of fairies, witches, or evil spirits. Permanent hurtful impressions have thus been made, rendering children frightened, nervous creatures, afraid to be alone in the dark, and of a melancholy mood. How different would it be in many instances were children so circumstanced as that nothing unchaste should meet the eye, or catch the ear ; nothing but what was chaste, pure, innocent, and good ! As a great writer puts it, “ Even the common necessities and actions of nature should be always expressed before them in the most modest forms of speech that our mother-tongue can furnish us with.” In this respect, as the poet says, children should be treated with the utmost reverence.



On the Exercises fitted for youth; how to carry an infant; Perambulators, etc. Walking, leaping, dancing, riding, swimming, fencing, rowing, etc.—A very ordinary observer cannot fail to be struck with a sense of the necessity of exercise, when he witnesses the restlessness of children, or rather their unceasing movements. The dear little ones are, like the pendulum, continually oscillating, or tossing about and stretching themselves, and become dissatisfied when the nurse does not aid those irresistible movements by moving him up and down, when too feeble or too young to plant the foot; or when older, and able to try at least to walk, she has not the conscience, or the spirit, to encourage the anxious attempt. Those movements of the child have one great meaning; to be short, they are indispensable to development and growth. The best exercise for an infant is that of being carried about in the pure open air for a considerable part of the day when the weather is fine, and without any veil on the face if the weather be not damp or foggy. The best position is that on the mother's or nurse's back, the plan of savages, gipsies, and tinkers. We do not expect this method to be followed; in general, therefore, when an infant is carried on the arm, it should not be continually on the same arm. Children are apt to become twisted or deformed when always carried on the one arm. They may often with advantage be laid on their back, and permitted to toss about at pleasure.

*Perambulator.*—This article is very much in vogue

now-a-days, but when the mother or nurse is strong enough to carry the child, the less it is employed the better. There is not so much harm in it in warm weather, provided the infant's head be protected from the rays of a hot sun, but it should be arranged that there be plenty of room to enable the infant to move its legs freely; and while there should be no restraining of the body, the back and chest ought to have moderate support. Even in summer children are apt to catch a chill in them, wanting, as they do, the mother's or nurse's heat, which they get when being carried on the arm. We would not out and out condemn them, however; for a strong child of eight or nine months—one too heavy for any one to carry long—will be none the worse of a ride in this miniature carriage. The whole thing is to avoid letting them catch cold, or heat of the head, or being placed in a restrained position; or in a posture where the body is not properly supported. We are afraid the institution of these has led greatly (as the bottle has done in suckling) to the abdication of a natural, useful, and, where able, a binding function or duty, viz., that of a mother carrying her own offspring until it is able to walk.

*When to allow a child to be set on his feet.*—There is a prevalent idea that if a child be too soon set down the legs will become crooked, but this is not correct, the limbs acquiring more strength the more they are exercised—a law of our nature. Some children's limbs are so feeble, their bones so soft, that bending is inevitable, whether they are set down earlier or later.

The chief thing is to regulate well the planting down. Let the mother or nurse do so gently, when a child is about eight months old. In doing it, sustain the body well, and do not let its full weight weigh on the extremities. Frequently during the day let the infant's feet be placed on the floor, or on a table, and strength and straightness of limbs, instead of bending, will follow.

*Deformity.* — This comes not from the use of the limbs, then, as a rule, but from the too late and mismanaged employment of them, together with a congenital softness of the bones. When a child begins to walk, and yet cannot do so without some assistance, what form should this help take? The best is by the mother's hand, first one hand and then the other. The plan of leading-strings fastened to the back is attended with several evils. It allows the child to throw its body too much forward, to press with his entire weight on the breast and bowels, and thus to interfere with the functions of breathing, etc. When a child is old enough, he or she may skip with much advantage; it is a graceful and healthy amusement. Plenty of walking exercise in the open air should be indulged in, too; it is not only a natural but a very beneficial form of exercise. Good walkers are usually very healthy persons; but we are afraid, what with modern means of locomotion, that they are now a rare class, and that health and strength has thereby much suffered. If young persons have a visit to make, say at even three miles distance, it is better for their health

to foot it than to bowl along in coach, tramway, or railway. The walk quickens the circulation, aids digestion, promotes the healthy action of the different secretions, and often renders laxative medicine unnecessary. How miserable a thing it is for young people to be cooped up the whole day in the house, stuffing the head, it may be, with nonsense, instead of romping about in the open air. The exercise of leaping is not to be commended. There is often too much shock given to the system (the amount of it, of course, depending on the height); besides rupture of muscles and ligaments is apt to be occasioned. Fracture of the patella, or knee-cap, has often been produced by a jump. Running is not adapted for delicate children, being too severe an exercise, but a moderate short run for a boy or girl of average health is not objectionable. A smart walk, however, is preferable. Running has frequently brought on bleeding from the nose, as well as from the lungs, which is worse; it has also induced palpitation of the heart, which in some cases has resulted in permanent heart disease. Apoplexy (a bursting of some of the vessels of the brain) has also occurred. Strong legs come of a good walk as well as of a good run, and without the risks of the latter. Some people may think we are too hard on running, but what we protest against, be it understood, is excessive and long continued chase. A hunt after a bee, or butterfly, in the pure open air is exhilarating.

*Dancing.*—This is an exercise that may or may not be salutary, much depending on the kind of dance, as

well as on the constitution of the youth. Some dances concuss the body more than others ; but on the whole this exercise is salutary. In girls where the menstrual discharge is retarded, a session at dancing has often brought matters right. If a youth be known to have heart disease, that is a clear bar to the indulgence of dancing. The dancing school or hall should be a capacious, well ventilated one, with thoroughly well cleaned walls and floors. When the exercises are over, the master should see that his pupils cool down before going into the open air, and it would be beneficial to supply them with tea, cocoa, coffee, or milk. These beverages refresh, and during the partaking of them, time is given for the quickened circulation to calm down. Croquet and lawn tennis are excellent exercises for young girls. Cricket, fencing, and golf, are well adapted for invigorating the young. In cricket, almost every muscle is called into fine play, great agility is acquired, and the vision is rendered sharp and precise. In fencing, the chest is handsomely braced back ; the body elegantly poised, the muscles of the arm and chest are braced up ; and after practice for some time, there comes an elegance of carriage, and aptness for neatness and swiftness of bodily movement, which those unaccustomed cannot command. Some literary men have been known to fight with their own shadow as a wholesome exercise ; but it is easy to produce a dummy, if in straits. Wrestling is well suited for boys, unless they be of very delicate make. *Football* is also good, but liable, as presently con-

ducted, to much abuse, involving many bruises and fractures of the lower parts. Reading aloud and singing are highly beneficial to the young; they help to expand the chest, and to strengthen the lungs. Singing being more fatiguing than speaking, a young person with weak lungs should not indulge in it; even loud speaking or declamation should be avoided. Swimming is a most invigorating exercise for the young, who ought to practice it early. It calls nearly all the muscles of the body into active and healthful play; while the sea water especially is an excellent tonic. When a person swims he is obliged to inhale an extra quantity of air, and this leads to a beneficial expansion of the chest. The case is different if the lungs be weak; in the latter case the forced entrance of air may lead to rupture of a blood-vessel—spitting of blood. Riding on horseback is a most salutary exercise, alike for boys and girls. A delicate youth should ride on an ass instead of a wild or too spirited pony, the motion being easier. If he have delicate lungs, he may both have his gentle exercises and his asses' milk, that is, if a female ass—the animal thus subserving two great purposes. At one time riding was supposed to be a cure for consumption; no less distinguished a physician than Sydenham believed it. Now without going that length, we recommend it as a very bracing exercise for slender boys and girls. Rowing, when moderately done, is bracing, both for boys and girls. If on the sea, they also obtain the benefit of a most exhilarating air.

*Amusements of children—children's evening parties, etc.*—There is no doubt but that children require, and will have, amusements of various kinds; and these when of a proper kind are highly beneficial. At one time there was a deal of austerity and tyranny practised in this country; children were not allowed to speak even in the presence of their parents, and were kept in a state of abject subjection. This miserable condition of affairs no longer prevails, and the buoyant, and blooming, and merry youth, is permitted much more of freedom. This is what ought to be, when the indulgence implies no moral or physical evil. Let them be amused after their lessons are over with innocent sport; with the hoop, the top, the kite, stilts, cricket, etc., etc.; or, if a girl, with croquet, lawn tennis, etc.; and assuredly, within due bounds, benefit will accrue. As regards children's parties, these may or may not be wholesome and beneficial. It is good for the young to mix together at an evening party, to romp, and play, and dance for a while; but there has often been pointed out certain evils attaching to such parties. Perhaps these have been exaggerated; but we shall notice them briefly. Some have objected to the stylish dress; we do not. What can be a prettier sight than to witness an elegantly dressed girl, for example; only, in the cold season, when parties commonly prevail, the neck and chest should not be uncovered. The lateness of the hour has been objected to, and we join in condemning it. The party begins say at eight or nine o'clock, and does not terminate until midnight. This

is injurious to health. A child's party should begin at six o'clock, and break up not later than nine o'clock. Again, in connection with children's parties, there is often administered the very worst form of food (although it may be the best of its kind), viz., pastry and lemonade. This, after dancing or perambulating in a heated room, is not at all adapted to health. Better far were a dish of pottage, with good milk, handed round, or milk with good wheaten bread and butter. These latter, however, are reckoned too vulgar, and the fancy edibles, buns, tarts, shortbread, seed cake, sponge cake, etc., are employed instead. The result can scarcely be anything but sickness, or a bilious headache, or worse, the following day—the youth being unable to go to school. Evening parties then should be begun early, and ended not too late; and the repast should be simple and natural. In such a case, combined with rattling fun, children would be benefited—exhilarated and cheered.

**Sleep and Sleeplessness.**—A great deal of information in reference to an infant's health is obtained by noticing how it sleeps. A healthy child a month old, suckled at a good breast, whether that of the mother or the wet nurse, and otherwise well nursed and cared for, will sleep from 18 to 20 out of the 24 hours. The slumber is calm, peaceful, and profound; there is a beautiful ease and tranquillity about it; very little starting, twitching, restlessness, tossing about, or moaning. When the infant is about two to three months old, *he is more wakeful during the day, but still will*



sleep for hours calmly in the forenoon, and again in the afternoon, if in a condition of fair health ; and when put to bed, say at nine or ten o'clock at night, will not awake until four, or five, or six o'clock in the morning. This applies to children before the period of dentition, or teething : when this time arrives there is usually more restlessness and irritation, and the sleep is more broken. Still, in typical healthy children the breeding, growth, and cutting of the teeth will not much, if any, interfere with that calm and tranquil repose to which we have referred. When sleep is imperfect, broken, and disturbed, when the infant wakes up often, cries, moans, dreams, tosses about, starts, etc., the indication is that something is wrong, that there is a condition of unhealth, and it is the duty of those concerned to find out the cause. A very slight deviation from health will lead to sleeplessness (or insomnia) ; a little indigestion and wind, or flatulence, is enough. In such a case a dose of castor-oil will cure, and ensure good sleep. Worms are a frequent cause ; these should be looked for, and got rid of. Teething, too, the pressure of a tooth or two against the gum conduces to sleeplessness. Scarification in such a case will do good. There is no doubt whatever that teething is one of the most common causes of sleeplessness, of wild dreams, of nightmare, of nocturnal screaming and struggling. Children will often wake up every half hour or so, and wear out both the *patience* and the strength of mother or nurse. There *is* then a temptation to resort to soothing draughts,

and doubtless many children are injured in this way. The great thing is for the doctor to find out the cause, and cure it, if possible. A good plan for securing sleep is to rub the child's spine with warm oil for five minutes, then to place it in a warm bath for about five minutes, placing it soon after in its crib, in an airy, quiet apartment, with the light low, and with very little covering about the head. The nurse may with benefit indulge in a simple lullaby.

**Rocking-chair or Cradle.**—We do not approve of this method of lulling the infant to sleep. It is not required in the case of healthy children, and in the case of those out of sorts it may send them to sleep for a while, but yet shakes the whole body, and sometimes injures the tender brain. Where a hood is over the top of the cradle, too, it confines the air, and prevents the child from obtaining it in that pure condition which is so indispensable to health. It conduces to squinting also, for children have a habit of staring up at it, and usually at one side of it. Mothers and nurses, moreover, have a tendency always to go to one side of the cradle, which also conduces to squinting.

**Some remarks on the Hair, and its Treatment when abnormal.**—The hair in children differs greatly in quantity and strength. Some are born with a profuse crop, others only with some scanty patches, which remain thin and feeble for months, unless some treatment be resorted to. It is rare for young children to have a blanching of the hair, that is to say, for their hair to turn grey, yet Wilson has mentioned the case

of a youth, aged seven years, whose hair was striped alternately white and brown. In this case there must have been an inherent weakness of the cortical layer of the scalp. Sudden changes in colour we know take place in the adult from grief and other emotions ; it becomes blanched even in a single night. Such was the case with the unfortunate Marie Antoinette, and with Sir Thomas More, etc. In the young, as before observed, it is not so common, yet numerous instances do occur. In adult life, too, when turned twenty years or so, many men and women become speedily grey. Then children are very liable to herpes, porrigo, ringworm, tinea, alopecia, etc., of the scalp, and where the hair is feeble it is sure to fall, and, it may be, permanently. The question arises then, *can anything be done to prevent this?* It stands to reason that if the hair be strong, it will hold out better—it will withstand disease better than if it be weak. What means or remedies have we for the purpose of strengthening it? Scores of preparations have been recommended : castor oil, palm oil, almond oil, bear's grease, neat's-foot oil, rosemary water, whisky and water, weak hartshorn, etc., etc. Now, any one knowing the anatomy or physiology of the human hair, knows that oily, or fatty, or greasy compounds are unsuited for the purpose of invigorating it. Instead of this, they do the very reverse. Our attention has been called to a preparation highly spoken of, and which has proved of great benefit, viz., Mrs S. A. Allen's *Zylo Balsamum*. This is not a cosmetic hair-dye, but a preparation of a purely tonic nature. We understand

that it contains no mineral admixture, but is entirely vegetable, and safe in application. It is recommended to be applied early to children's hair when this is weak and scanty, so as to ward off premature baldness. It prevents and removes dandriff also, which it is obvious oils cannot do. Children's heads should be often washed with soap and cold water as another efficient means of invigorating the hair, but this cleansing process is not sufficient, a stimulating wash such as we have noticed being required.

1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

## APPENDIX

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On Various Articles of Utility employed in the Nursery and Sick-Room — Disinfectants, etc., etc.— There are numerous preparations of much service in the treatment of disease which we have called attention to in the course of this book ; but there are so many others of importance used in the nursery and sick-room for sanitary and other purposes, that we have resolved to devote considerable space to their notice. There are disinfectants, for example, and various hygienic and sanitary articles, which all should become acquainted with who have to deal with sickness or the sick-room, and few there are who have not. We know of no firm which has devoted itself so earnestly and vigorously to the manufacture of such preparations as that of Calvert & Co. of Manchester. We have been in the habit of prescribing their various preparations for a number of years, and we find that many of our professional brethren have equal confidence in their value with ourselves. We scarcely know where to begin in noticing their diverse preparations. Their carbolic nursery soap is one of the best that can be used for an infant's skin, bracing it up as it does, and curing as well as preventing the eruptions which so often break out. In cases of prurigo, lichen, and nettle-rash, this is really a valuable preparation. Another article which we must notice is Calvert's carbolic tooth-powder. Unfortunately, the teeth of children now-a-days melt away almost like "snow off a dyke when the sun shines." Still, a good tooth-powder may arrest decay ; and it is well for mothers and nurses to know the best kind to be used. Another pre-

paration worthy of attention is their carbolic powder for disinfectant purposes. This powder is now employed in most houses, in public urinals, and water-closets, for the purpose of neutralising noxious effluvia, and, therefore, preventing disease. In the case of fevers, it should be sprinkled at once over any excretion, and plentifully thrown down the w.c. It should also be sprinkled over any damp, musty, ill-odoured spot, and some of it may be placed in one or more dishes in the sick-room. Much can thus be done in the way of destroying contagion, and of preventing disease. Calvert's carbolic acid, when mixed in the proportion of an ounce to half a gallon of water, proves also a most effective disinfectant. The carbolic preparations of Calvert & Co. have been tested in the Morgue in Paris. There, as is testified by Nélaton and other eminent French physicians, it more effectively destroyed the noxious effluvia arising from the decomposition of the dead bodies than the other preparations, such as chloride of lime, etc.

**Maltine.** — Another preparation of great utility in the diseases of children is maltine, which is rapidly superseding cod-liver oil and chemical food. This preparation is a highly-concentrated extract of malted barley, wheat, and oats; and we know from Liebig that these are rich in elements that go to fatten and to strengthen. The great physician Ziemssen has much faith in maltine and its compounds. He says that in consumption and other wasting diseases of children he prefers it to cod-liver oil, and finds it of great benefit. There are numerous combinations of maltine: it is mixed with iron, with pepsine, and pancreatine; with hypophosphites of different kinds; with strychnia, quinia, etc. The maltine wine with pepsine and pancreatine is very beneficial in the case of children who have a tendency to indigestion, or to atrophy or wasting. In diarrhoea, too, so common during dentition, it is of considerable value. Where cod-liver oil has been employed, and after a time abandoned, owing to the child rejecting it, or being purged *with it*, and losing its appetite, maltine, combined with the oil

in equal proportions, agrees well and does much good. If this combination fails—that is to say, if it disagrees with the stomach, and leads to bowel complaint, which may happen in some cases—then the maltine with beef and iron should be given. This forms an unique tonic, of much power, in the way of strengthening the body of the child. There is another preparation which we must call attention to, and which is of utility in phthisis or consumption, as also in wasting diseases of children, viz., malto-yerbine. It is a combination of maltine with carrageen or Irish moss and yerbine, a plant whose *habitat* is on the coast of the Pacific, where it is known to cure those suffering from coughs and colds. This preparation has undoubtedly done much good, judging from the numerous testimonials received. The patient soon gains in weight, the cough is moderated or banished altogether, digestion is not interfered with; in short, health returns, in numerous instances with surprising speed. It would indeed be a great boon and blessing were children, and adults also, by the use of such preparations (taken in time), so strengthened and restored as to obviate the necessity of resorting to foreign parts, where the comforts, attractions, and associations of home are wanting. It were needless to remark on the depressing effect of a residence where the poor patient is deprived of all these inspiriting influences. The malady is bad enough without this superaddition.

**Ozokerine.**—This is a preparation of Messrs Field, Lambeth, London, and one likely to supersede lard and oils as a basis for ointments. It possesses the great advantage of not turning rancid, as is the case with fatty and oily substances. This is a really important consideration, not only to the chemist or druggist, but especially to the medical man, because the latter, for instance, may, in ordering an ointment or salve, have his ends defeated entirely owing to the article being in a rancid condition. It may not only not cure, but aggravate the complaint, whether that be scalds and burns, or chilblains, and different affections of the skin. We commend this preparation,



therefore, highly, and believe that a great boon has been conferred by its production. Elsewhere in this work we have remarked on its emollient, soothing, antiseptic, and healing properties in various affections of the skin.

**Gelatine.**—This article plays an important part in the sick-room and nursery, and we propose making a few remarks on it as one of much value for culinary and curative purposes. Messrs Nelson, Dale, & Co., London, have published a book entitled “Home Comforts,” from which much useful information may be gleaned. Gelatine, in its various modes of preparation and combination, is most useful in fever cases, such as gastric or enteric fever, and in diarrhoea, whether arising from epidemic influences or from irregular and bad dieting. In dyspepsia, too, it will often be the only article of diet that will sit lightly on the stomach—that will go down in fact. The book published by Nelson & Co. is really worthy of careful perusal, and we recommend it as supplying a vast amount of practical hints of much value. It enters minutely into the different ways of manipulating gelatine, and of mixing it for dietetic purposes; and really diet, not medicine, is the most paramount consideration in many of the diseases of the young. Gelatine has greatly replaced isinglass since it was made carefully and pure by Nelson.

**Nutricine.**—This is new medicine, consisting of a combination of light fatty matters and oils, prepared by Dewar, chemist, Edinburgh. It is of much service in scrofula, in consumption, in wasting diseases, in coughs, in tabes, or disease of the glands of the belly. It is superior to cod-liver oil, not only in regard to nutritious and medicinal properties, but also in the fact of its being more readily assimilated. The maltine preparations, along with cod-liver oil, would appear to be equally valuable; and here, as in other parts of the book, we commend them highly.

**Saline Preparations: their Utility in Diseases of Children.**—There cannot be the slightest shadow of a doubt that

salt and saline preparations play a most important and indispensable part in the human economy, and particularly so in the case of the young. We have seen many children, if not ruined in health, at least greatly injured in body, by the use of sugar in their food, instead of salt or salines. We have referred to this in different parts of this work, and have pressed upon mothers and nurses the necessity of not sweetening an infant's food, but rather salting it. When children are brought up on the bottle, and now-a-days their number is legion, the mother or nurse usually puts sugar into the milk, and forgets or ignores the paramount article of salt. This is an immense mistake. When children's food is sweetened (over-much sweetened) they lose zest for the most nutritious articles of diet; and a continuous use of sugar or saccharine articles of food serves only, and certainly, to contribute to the production of decayed and rotten teeth; to soft bones, and their consequences (viz., bandy or bowed legs, pigeon chest), big soft heads, swelled glands, snuffles, bleared eyes, etc. All these ailments may happen hereditarily, or is the result of scrofulous disease, but many, we are certain, from long experience, arise from the employment of starchy and saccharine preparations, instead of saline ones. In searching for the best combination of salines, we alighted on that of Mr Lamplough, London, and found that his preparation, "pyretic saline," was one of the best, if not the best, extant. Its utility as a remedy in fevers, as a cooling drink in the exanthematous diseases of children, such as scarlet fever, measles, etc., has been testified to by the leading members of the medical profession. There is also extensive evidence of its value in all infantile febrile complaints. Children, when feverish, will often for days take nothing but cold water, but if, as we believe, they can be coaxed to take a little of the "pyretic saline," it will certainly prove beneficial. The fever heat, and the pulse are reduced, and the little patient is much cooled and refreshed. Only those who have passed through a fever, whether typhus, typhoid (or, as it is commonly termed, gastric), remittent fever, ague, small-pox,

etc., can appreciate to the full extent the pleasure and benefit of a good saline draught. It is really a blessing and a boon to the fever-heated, restless, and tossed patient. It is scarcely within our province to refer here to the utility of Lamplough's saline in yellow fever, because that is a disease foreign to this country, and one which rarely affects the young. But in case our present work, like our previous ones, happens to cross the Atlantic, and invade the islands of the Pacific, we must mention that in the deadly fever referred to, it has proved, according to unquestionable testimony, of the highest service. Mr Lamplough possesses the virtue of not recommending his saline as a panacea for all physical ills; he defines, in a reasonable and rational manner, the functions which saline preparations are fitted to perform; and he points out various other medicines which are useful as adjuncts, as adapted for aiding their influence or action. In skin diseases saline preparations are of much service, by altering the condition of the blood, on which many of them depend. These are lichen, prurigo, eczema, and a host of others, where the "pyretic saline" will prove extremely useful; at the same time, of course, local applications are required. To conclude our too brief notice of salines, we must not omit to mention them in connection with cholera and diarrhoea. There is always great thirst in these cases, and a craving for water; but it should be seen to that no drink is given without a saline added. Saline injections, as is well known, have been injected into the veins in cholera cases, and a good many lives have been thereby saved. Finally, in the dyspepsia and indigestion of children, as remarked elsewhere, the saline preparation will often be more beneficial than the preparations of bismuth, pepsine wine, etc.

**The Pyretic Saline as a cooling Drink in Summer.**—Children are often treated to lemonade, ginger wine, and even beer, in the warm season. We are against all alcoholic stimulants for the young when they are in health. Lemonade, like *soda* or *potass* water, is unobjectionable on the whole, although *it is more apt to generate wind, or produce flatulence and gripes*

than the pyretic saline. This latter is therefore to be preferred. Many a belly-ache has arisen from the profuse use at children's parties of lemonade, etc.

**Different Kinds of Children's Meat-teas, etc.**—In the diarrhoea of children arising from teething and improper feeding, and in dysentery, whether epidemic or not, mutton-tea should decidedly be preferred to beef-tea. We have been in the habit of recommending it to be thus prepared :—Four ounces of lean mutton, two ounces of barley or rice, one quart of water ; as much salt as will lie on a shilling, and boil for half an hour. The meat should be chopped or minced before boiling. We find in some English works that one pound of meat is prescribed for a quart of water : this is making the tea by far too strong for the young, and is almost certain to induce kidney disease, especially in scrofulous children.

**Beef-tea.**—Liebig's extract, and other concentrated meats, are largely in vogue now-a-days. Many, however, prefer making their own, and judging from our own experience, children prefer the tea made in the ordinary manner to the different kinds of extracts. In preparing beef-tea, use the same amount of meat (chiefly lean) as in the case of mutton-tea. Always add barley or rice in the same proportion, not forgetting or omitting to put in a sprinkling of salt. Nelson's gelatine and beef extract combined is an excellent preparation.

**Chicken Broth and Veal Broth** require longer boiling in the preparation of them—say two hours. Always remember to put in either barley or rice, etc., not forgetting the salt.

**Barley Water.**—This is a very nourishing and beneficial drink for children, and we have often referred to it as such. Many do not know how to prepare it. The following is the method of preparation :—Two ounces of pearl barley to two quarts of water. Boil for an hour. The barley should be washed with cold water previously. Some recommend lemon-peel to flavour it ; in our experience it is better to give nothing of the kind ; only a sprinkling of salt and sugar.

**Wiltshire Bacon.**—I am often in the habit of prescribing Wiltshire bacon as a substitute for cod-liver oil in scrofulous cases. We are often told that the little one cannot take it, but I have rarely met with one that could not after a time take it; and, moreover, benefit by it. It should be cooked by toasting before the fire—three-fourths lean, and one-fourth fat; and to begin with, give only a small bit the size of a crown-piece to a child two years old. This should be given twice a-day. They will soon come to relish it, enjoy it, and be improved by it. It appears to me to be equal to cod-liver oil in many cases.

**Zoedone.**—Among the cooling, alterative, and strengthening drinks, zoedone has obtained a high place. It is a nutrient tonic, non-alcoholic beverage, containing iron and phosphorous; ingredients of the greatest importance in the case of scrofulous children, suffering it may be, from diseased glands, bones, and joints. In fevers, such as typhoid, typhus, scarlatina, etc., where a cooling drink is highly prized, it will be found alike very refreshing and invigorating. It is too often the habit to recommend alcoholic drinks; but when we have a true refrigerant and tonic such as zoedone, we are enabled to dispense with these, at least in numerous cases.

**Lentilla.**—We have referred to a good many dietetic articles in the course of this book, but recently our attention has been called to the above, as an excellent food for mothers while nursing, or for wet-nurses. It is not an infant's food, like that of Neave, of which we have elsewhere spoken. Among others, the late Dr Fairbank of Windsor, recommended it highly as a readily digestible, and very nutritious food in the case of mothers of delicate constitution and weak digestion.

**Poultices, or Cataplasms.**—Many people having the care of children do not know even how to make a poultice properly. The linseed meal poultice is one of the most serviceable in colds and affections of the chest, and is made as follows:—*Scald the basin by pouring a little hot water into it, then add some finely-ground linseed meal, and pour on more hot water,*

stirring actively the while so as to incorporate the meal and the water, and avoid having knots or lumps. Where it is intended to apply a poultice over the back of a child it may be spread pretty thick, as it will retain the heat longer; if over the front of the chest, it must be spread thinner, so as not to weigh too heavily and impede respiration. In this latter case the warmth will not be so long retained, hence the poultice will have to be more frequently renewed. Where the patient's family are in poor circumstances, the meal may be saved by softening and heating the poultice again by the addition of a little more warm water. Care should be taken to secure that the poultice is not too hot; this is best attested by holding it close to one's cheek, the palm of the hand not being so certain an indication. Many children have been scalded very seriously from inattention to this precaution. In regard to mustard poultices in the treatment of very young children, it is better not to apply pure mustard, but to mix it with a certain proportion of oatmeal, or linseed meal, according to age. One-fourth part of mustard will suffice in the case of an infant from four to eight months old. This should be removed in from ten to fifteen minutes, in order to see whether the skin be reddened sufficiently. If this result is not produced, the poultice must be re-applied. Mustard leaves, as they are termed, are too strong and irritating for the young, containing, as they do, a certain proportion of cayenne pepper. Bran poultices, we may add, retain the heat well.

**Fomentations.**—These are often of very great service in the treatment of children's ailments. In affections of the throat and chest the warm water fomentation (flannel wrung out of warm water), applied assiduously and frequently, say every half-hour, for several times, in cases of inflammation of the lungs and bronchitis, conduces greatly to relief and cure. Care, of course, must be taken not to produce scalding. The water fomentation has this advantage over poultices that the flannel is lighter, and better borne by many children. When there is

much pain, say, in inflamed joints or in earache, or in inflammation of the bowels, a little laudanum may be poured on the hot flannel; at other times, a decoction of the poppy heads may be employed.

**Application of Cold.**—While heat is often beneficial, cold plays its useful part in many instances. In congestion and inflammation of the brain, we apply it in the form of ice broken down, and tied into a bladder. Where ice cannot be obtained water should be drawn frequently fresh from the pipe, or from a spring well, and applied by means of a very light piece of linen, at least every quarter of an hour. It is surprising how soon the coldest cloth becomes warm in fevers and in head diseases; so that frequent renewal is absolutely necessary. Many a time have we seen a heavy napkin applied to an infant's head, and kept so long on as to become like a warm poultice instead of a refrigerating appliance, thus entirely defeating the object in view. Ice is useful in fevers—we mean given by the mouth—and is a most grateful article. In very young children, a small bit may be tied in a bit of muslin, and the infant allowed to suck it.

**Leeches.**—The application of leeches is often of much utility in children's diseases. In chest affections the employment of a few frequently arrests inflammation. Here a caution is necessary. Do not apply them too high up above the breast-bone, as there is often difficulty in arresting the bleeding, children being naturally restless. The medical man will usually regulate this. When applied to the chest, we should see also that the little one's breast is not too much exposed; for, if so, a fresh cold may be induced. Leeches usually drop off in from twenty to thirty minutes—that is, if they have sucked well. If one or two should cling longer—perhaps not imbibing at all—it is advisable to remove them, so as not to unduly fatigue the patient. A little salt applied to the head readily effects their severance.

**What to do if the bleeding does not stop.**—In many cases

there has been no little difficulty in arresting the bleeding from leech-wounds, especially if they have been applied on a soft and very flexible part, which, of course, is bad practice. A good plan is to apply a little cotton-wool, or scraped-lint, or the pile of a hat, over the bite, and press on it for a while with the finger. When this does not succeed, a little lunar caustic may be applied; but such grave cases should be in the hands of the doctor.

**Warm Bath.**—The warm bath is an important remedial agent in numerous diseases of the young. It is so valuable in many cases that the want of it—we mean, of warm water promptly—has led to many a death. That we are certain of; and often have we had to regret, deplore, and condemn the want of it, or the gross thoughtlessness that failed to provide it, even in presence of a blazing fire. Among the diseases in which it is essential are convulsions, croup, and various inflammatory affections. Inflammation of the lungs and bronchitis have frequently been averted by the use of the warm bath, when a child has caught, it may be, a slight cold. The bath is also safe and valuable when the eruption of measles or the rash of scarlatina is slow in coming out; and it is excellent in a diarrhoea brought on by cold when given at an early stage. In cases of difficult dentition or teething it also tends to soothe the nervous irritability of the child, and to arrest the diarrhoea gradually. Some mothers and nurses actually dread a warm bath, thinking it to be very relaxing, nay, dangerous. This is a gross mistake; it is only the too frequent employment of them in weak children that can lead to harm. The temperature of the water must be attended to. From 92° to 98° is usually the suitable degree, the latter not being exceeded. This can only be properly regulated by a thermometer.

**How long should Children be kept in a Warm Bath?**  
—A child a few weeks old should only be kept in about five minutes; when six months old, ten minutes; when a year, fifteen minutes; and so on. The child should be immersed up



to the neck, and a blanket or screen applied around the bath, to prevent any draught. When taken out, he should be well and quickly dried with a napkin or towel well warmed. In acute cases he should be then enveloped in flannel, and placed in his crib.

**Mustard Foot-Bath.**—This is often very useful in convulsions and teething, and slight head affections. A tablespoonful of mustard is put into an ordinary-sized child's bath, the water being about the temperature previously mentioned. While the child is in the bath, cold water may be sprinkled on the head and face.

**Feeding Bottles, etc.**—There are numerous feeding bottles extant, but many of them are very unsuitable. Messrs Kay, of Stockport, have invented one with a patent glass valve, to which we have elsewhere referred, but which we desire again to notice. Kay's bottle possesses a patent glass valve, which effectually prevents the child sucking air, and so distending its stomach as to interfere very much with digestion, while at the same time giving rise to grips and colic. It has the merit of much ingenuity, and doubtless has been a blessing to many children. The Messrs Kay's soothing powders for children during teething (the composition of which they furnish to medical men, and therefore are not a nostrum or quack remedy), are very beneficial. Although many medical men prescribe medicines whose composition is unknown—often, in fact, being obliged to do it—it is better to adhere to those remedies the constituents of which are known. Plasters for arresting the secretion of milk in the maternal breast are also made by Messrs Kay, and answers well for the purpose.

**Plasters.**—A new plaster has been invented of late, termed the india-rubber porous plaster, by Seabury & Johnson, of London. All kinds of drugs connected with the old plasters in the pharmacopœia are used, and it is claimed for this porous plaster (and the *Lancet* endorses the statement) that they are *elegant and flexible*; that they stick well, easily adapting

themselves to the folds of the skin, and thus occasioning little inconvenience to the patient. It is of great importance to have such a plaster in the case of the young, because the old kinds—non-porous—gave rise to a deal of uneasiness and distress, which almost, if not altogether, outweigh the good that otherwise they would have conferred.

**Enemata, or Injections.** — Some children are liable to excessive constipation of the bowels, and various aperient medicines, such as castor oil, rhubarb, magnesia, etc., are used. When these fail to induce a motion, an enema, or injection, should be employed. But this should not be often administered, as it is apt to be followed by increased constipation or costiveness. The best injection for children is a dessert-spoonful of castor oil and warm water; the ordinary syringe, containing about four ounces of water, being used. In severe diarrhoea, and in dysentery a little thin starch, with a drop or two of laudanum in the injection, does good. In the case of the thread-worm, as before remarked, an injection of infusion of quassia into the lower bowel, or rectum, is of much benefit. In the employment of injections in children, care should be taken not to injure the bowel by a reckless application of the tube; and another caution is, not to inject too much into the bowel. Three to four ounces is sufficient for a child of six months. Beef-tea, mutton-tea, chicken-tea, and veal soup, etc., may be injected into the bowel in cases where the child vomits the food; and this revives the infant to a certain extent; although nutrition and assimilation is not so well promoted in this way. Indeed, the liquid nourishment thus given is but slightly absorbed, and, therefore, is but moderately nutritious. Still, in fevers attended by want of appetite, by distaste of food, and by a tendency to vomit any small quantity of food partaken of, injection of the various kinds of meat-teas, does a deal in the way of strengthening and restoring. Remember to inject only a small quantity at a time; two ounces for a child six months old, and four ounces for one twelve months old. In cases of

great prostration from protracted sickness, it is sometimes necessary to add a teaspoonful or two of brandy to the injection, more particularly if the meat-teas do not seem to have an invigorating effect. A critical case may thus be made to rally and to recover.

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